

Service Manual

ViewSonic VA502mb-1

Model No. VS11352

15" Color TFT LCD Display

(VA502mb-1_SM Rev. 1a Dec. 2006)

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Revision History

Revision	SM Editing Date	ECR Number	Description of Changes	Editor
1a	12/20/2006		Initial Release	Jamie Chang

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1. Precautions and Safety Notices

1.1 SAFETY PRECAUTIONS

This monitor is manufactured and tested on a ground principle that a user's safety comes first. However, improper use or installation may cause damage to the monitor as well as the user. Carefully go over the following WARNINGS before installing and keep this guide handy.

WARNINGS

- This monitor should be operated only at the correct power sources indicated on the label on the rear end of the monitor. If you're unsure of the power supply in your residence, consult you local dealer or power company.
- Use only the special power adapter that comes with this monitor for power input.
- Do not try to repair the monitor your self as it contains no userserviceable parts. This monitor should only be repaired by a qualified technician.
- Do not remove the monitor cabinet. There is highvoltage parts inside that may cause electric shock to human bodies, even when the power cord is unplugged.
- Stop using the monitor if the cabinet is damaged. Have it checked by a service technician.
- Put your monitor only in a clean, dry environment. If it gets wet, unplug the power cable immediately and consult your service technician.
- Always unplug the monitor before cleaning it .Clean the cabinet with a clean, dry cloth. Apply nonammonia based cleaner onto the cloth, not directly onto the glass screen.
- Keep the monitor away from magnetic objects, motors, TV sets, and transformer.
- Do not place heavy objects on the monitor or power cord.

1.2 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltages, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire ,or other hazards.

1.3 SERVICE NOTES

When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.

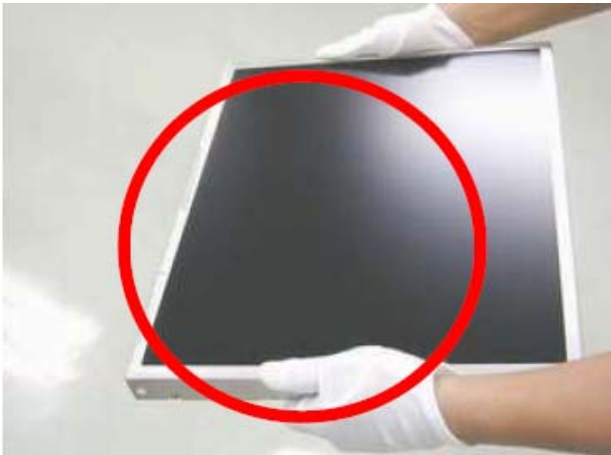





When replacing a high wattage resistor(more than 1W of metal oxide film resistor) in circuit board, keep the resistor about 5mm away from circuit board.

Keep wires away from high voltage, high temperature components and sharp edges.

Keep wires in their original position so as to reduce interference.

Usage of this product please refer to also user's manual.

1.4 HANDING AND PLACING METHODS

Correct Methods:	Incorrect Methods:
<p>Only touch the metal frame of the LCD panel or the front cover of the monitor. Do not touch the surface of the polarizer.</p>	<p>Surface of the LCD panel is pressed by fingers and that may cause "Mura."</p>
	
	
<p>Take out the monitor with cushions</p>	<p>Taking out the monitor by grasping the LCD panel. That may cause "Mura."</p>
	
<p>Place the monitor on a clean and soft foam pad.</p>	<p>Placing the monitor on foreign objects. That could scratch the surface of the panel or cause "Mura."</p>



Place the monitor on the lap, the panel surface must be upwards.



The panel is placed facedown on the lap. That may cause "Mura."



2. Specification

2.1 PRODUCT SPECIFICATIONS

INTRODUCTION

	FEATURES	VA502mb
1 st TFT LCD panel	Size	15 "
	Luminance (Typ)	250 cd/m ²
	Contrast Ratio (Typ)	450 :1
	Colors	16.2 M colors (6+2bit panel)
	Response Time (Typ)	16 ms
	Viewing Angle (H/V) (Typ)	120° / 100 °
	Recommend resolution	1024x768 @60Hz
Input Signal	Analog (75ohms, 0.7/1.0 Vp-p)	Yes
	Digital (DVI-D)	No
Sync Compatibility	Separate Sync	Yes
	Composite Sync	No
	Sync on Green	No
Compatibility	PC	Yes
	Power Mac	Yes
	TV Box (NextVision 6)	no
Power Voltage	AC 100-240V, 50/60Hz	Yes
Power Consumption	On Mode(Max / Typ)	Under30 W in max
	Active Off Mode (Max)	Saving mode< 4W Off mode <2 W
Ergonomics	Tilt (-5 ° - 22.5 °)	Yes
	Swivel	No
	Pivot	No
	Height Adjust	No
OSD Control	[1] [2] [☺][▲][▼]	Yes
Dimension	Physical (W x H x D)	344.6x336.5 x 160 mm
	Package (W x H x D)	408x414 x 314 mm
Weight	Physical (Net Weight)	3.0Kg
	Package (Gross Weight)	4.2 Kg
Operating Condition	Temperature (°F/°C)	41°F~95°F / 5°C~35°C
	Humidity (%)	10 % - 85 %
Storage Condition	Temperature (°F/°C)	-4°F~140°F / -20°C~60°C
	Humidity (%)	5 % - 85 %
Regulation	UL, cUL, TUV/GS, TUV/ERGO (cover ISO13406-2),	

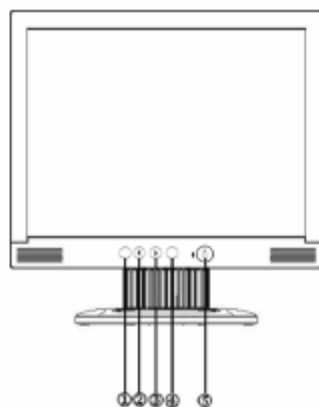
PRODUCT DEFINITION AND SPECIFICATION

Product Name	VA502mb
Model Number	VS11352
Region	M model for America
OSD Languages	English, Spanish, Portuguese
TFT LCD Panel and Model #	SAV Model # :150XG04TB
Scalar	Novatech Model# NT68521A-XFG
Input Signal	Analog
Sync Compatibility	Separate
Adapter	No
Power Cable	Refer to Appendix D
Analog Cable (1.8m, color : black), with PC 2001 and Hot Plug Detect &DDC	Yes
Audio Cable (1.8m, Color: black) with PC 2001	Yes
ViewSonic CD Wizard	English, Spanish, Portuguese,
ViewSonic Quick Start Guide	
Screen Protector Mylar	Yes
Hi Pot label	Yes
QA pass label	Yes
Hg Warning label	Yes
Warranty Sticker	NO
Warranty Card	NO
Carton Sticker	NO
PE bag of Carton	NO

TFT LCD PANEL

1 st Panel Source	SVA 150XG04TB
Type	TN, LVDS
Active Size	304.128 mm (H) x 228.096mm (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.297 mm
Glass Treatment	Anti Glare (Hard coating 3H)
# of Backlights	2 CCFL edge-light
Backlight Life	30,000 Hours (Min)
Luminance –Condition: CT = 6500 K Contrast = Max, Brightness = Max	250cd/m2 (Typ after 30 minute warm up)
Brightness Uniformity	1.3 (max)
Contrast Ratio	450:1 (Typ), 350:1 (Min)
Color Depth Vertical)	16.2 million colors (6+2 bit panel)
Viewing Angle (Horizontal)	120 deg (Typ)@ CR>10
Viewing Angle (Vertical)	100 deg (Typ) @ CR>10
Response Time 10%-90% @ Ta=25°C	16 ms (Tr= 12ms, Tf = 4 ms) (Typ) 25 ms (Tr= 18ms, Tf = 7 ms) (Max)
Panel Defects	Please see Panel Quality Specifications.

3. Front Panel Function Control Description



External Control Button

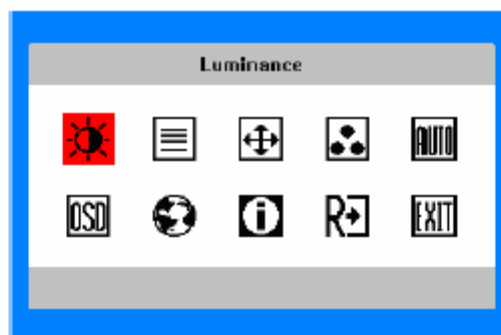
EXTERNAL CONTROLS

1.	Auto Config / Exit	4.	MENU / ENTER
2.	Volume -	5.	Power Button/ Power Indicator
3.	Volume +		

Do the following to adjust the display setting:




















HOW TO ADJUST A SETTING

1. Press the MENU-button to activate the OSD window .
2. Press ◀ or ▶ to navigate through the functions. Once the desired function is highlighted, press the MENU-button to activate it. If the function selected has a sub-menu, press ◀ or ▶ again to navigate through the sub-menu functions. Once the desired function is highlighted, press MENU-button to activate it.
3. Press ◀ or ▶ to change the settings of the selected function.
4. To exit and save, select the exit function. If you want to adjust any other function, repeat steps 2-3.



Main Menu Controls

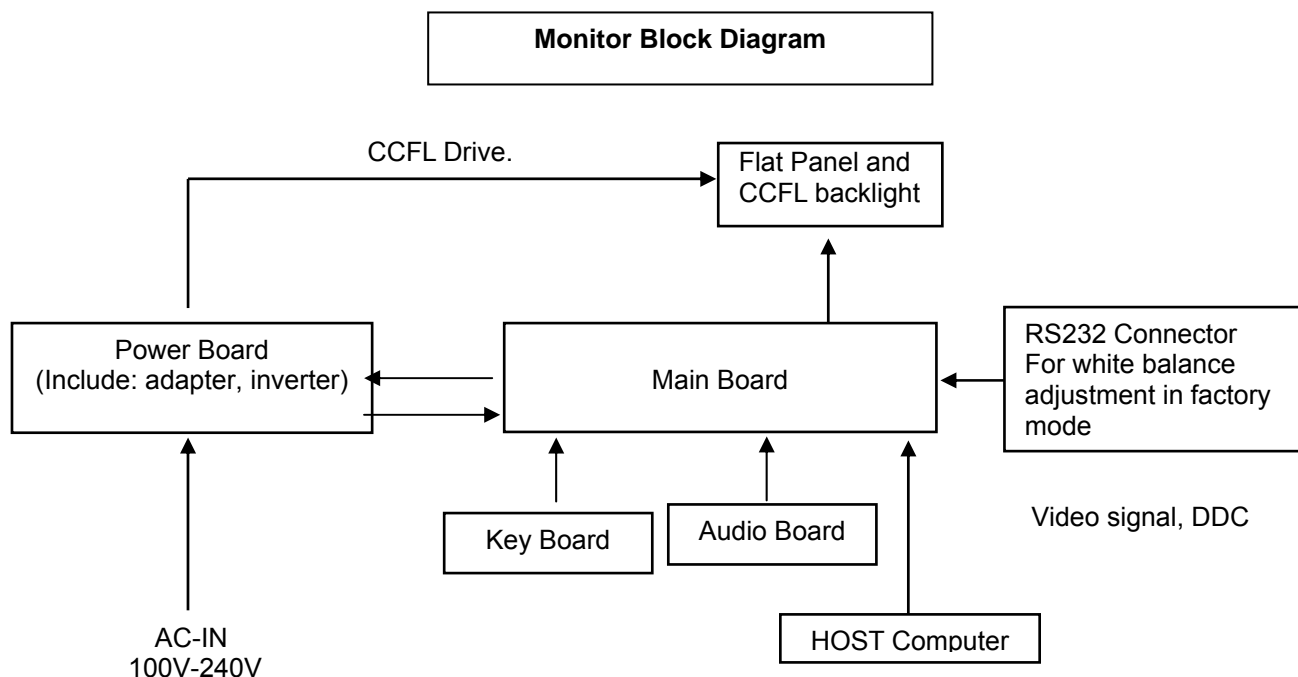
The descriptions for function control LEDS.

Main Menu Item	Main Menu Icon	Sub Menu Item	Sub Menu Icon	Description
Luminance		Contrast		Contrast from Digital-register.
		Brightness		Backlight Adjustment
Image Setup		Focus		Adjust Picture Phase to reduce Horizontal-Line noise
		Clock		Adjust picture Clock to reduce Vertical-Line noise.
Image Position		H. Position		Adjust the horizontal position of the picture.
		V. Position		Adjust the vertical position of the picture.
Color Temp.		Warm	N/A	Recall Warm Color Temperature from EEPROM.
		Cool	N/A	Recall Cool Color Temperature from EEPROM.
		User / Red	R	Red Gain from Digital-register.
		User / Green	G	Green Gain Digital-register.
		User / Blue	B	Blue Gain from Digital-register.
Auto Config		Yes	N/A	Auto Adjust the H/V Position, Focus and Clock of picture.
		No	N/A	Do not execute Auto Config, return to main menu.
OSD Setup		H. Position		Adjust the horizontal position of the OSD.
		V. Position		Adjust the vertical position of the OSD.
		OSD Timeout		Adjust the OSD timeout.
Language		Language	N/A	Set OSD language
Information		Information	N/A	Show the resolution, H/V frequency and input port of current input timing.
Reset		Yes	N/A	Clear each old status of Auto-configuration and set the color temperature to Warm.
		No	N/A	Do not execute reset, return to main menu.
Exit		N/A	N/A	Exit OSD

4. Circuit Description

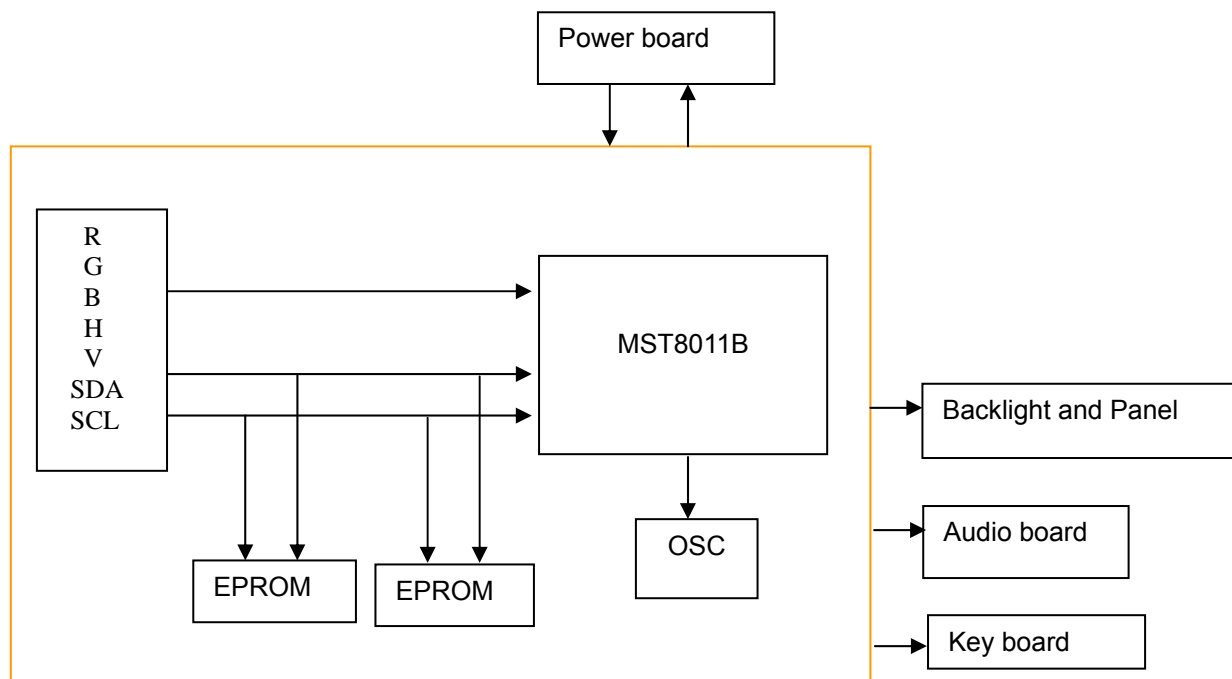
4.1 LCD MONITOR DESCRIPTION

The LCD MONITOR will contain a Main Board, a Power Board, Key Board and Audio board which house the flat panel control logic, brightness control logic and DDC.



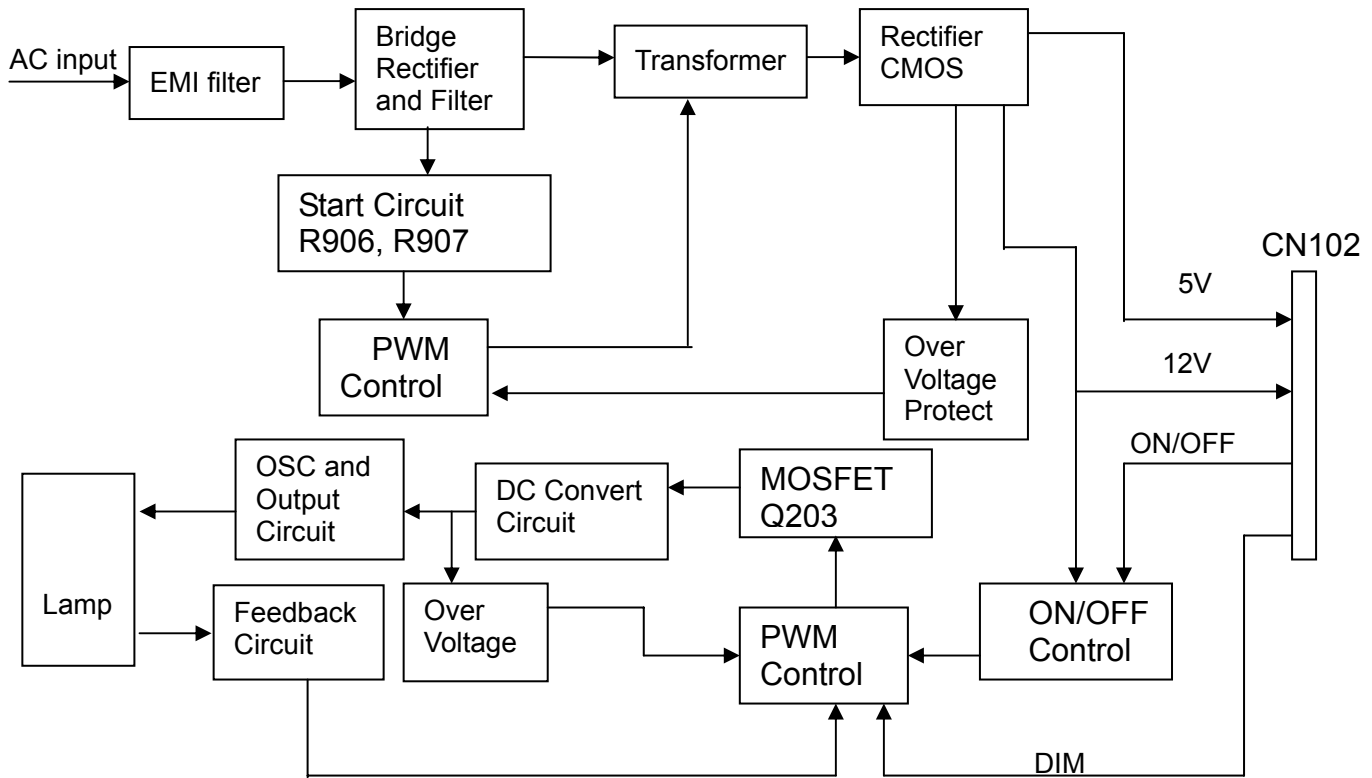
4.2 MAIN BOARD BLOCK FUNCTION DESCRIPTION

The main board contains panel control logic, brightness control logic; DDC and DC convert DC circuit and so on.



4.3 PWPC BOARD BLOCK FUNCTION DESCRIPTION

PWPC board combines to adapter and inverter, Adapter which commonly consists of bridge rectifier and filter, start circuit, PWM control circuit, protection circuits and convert to 12V, 5V DC voltage by input 90V-240V AC voltage that provide power supply for each chips in the main board and inverter. Inverter is DC TO AC circuit. It changes the 12v DC of power supply to about 600-800v AC that drives the backlight. It mostly consists of starting circuit, PWM controller, DC changing circuit, LC surging circuit, output circuit and protection circuit etc.



4.4 INTRODUCTION OF IC

MST8011B (U401): integrate ADC, OSD, SCALER, LVDS, convert analog RGB into digital and room and shrink scaling output to LCD panel.

PIN Function:

PIN DESCRIPTION

CPU Interface

Pin Name	Pin Type	Function	Pin
HWRESET	Schmitt Trigger Input w/ 5V-tolerant	Hardware reset; active high	32
CS	Input w/ 5V-tolerant	3 Wire Serial Bus Chip Select; active high	69
SDA	I/O w/ 5V-tolerant	3 Wire Serial Bus Data; 4mA driving strength	70
SCL	Input w/ 5V-tolerant	3 Wire Serial Bus Clock	71
INT	Output	CPU interrupt; 4mA driving strength	72
AD3	I/O w/ 5V-tolerant	DDR direct bus AD3; 4mA driving strength	31
AD2	I/O w/ 5V-tolerant	DDR direct bus AD2; 4~12mA driving strength programmable	78
AD1	I/O w/ 5V-tolerant	DDR direct bus AD1; 4~12mA driving strength programmable	77
AD0	I/O w/ 5V-tolerant	DDR direct bus AD0; 4mA driving strength	30
ALE	I w/ 5V-tolerant	DDR direct bus ALE; active high	69
RDZ	I w/ 5V-tolerant	DDR direct bus RDZ; active low	71
WRZ	I w/ 5V-tolerant	DDR direct bus WRZ; active low	70
BUSTYPE	Input (not 5V-tolerant)	Bus type • Low : Serial bus • High : Direct bus	6

Analog Interface

Pin Name	Pin Type	Function	Pin
HSYNC0	Schmitt Trigger Input w/ 5V-tolerant	Analog HSYNC input	37
VSINC0	Schmitt Trigger Input w/ 5V-tolerant	Analog VSYNC input	38
REFP		Internal ADC top de-coupling pin	66
REFM		Internal ADC bottom de-coupling pin	67
RIN0	Analog Input	Analog red input	63
RIN0M	Analog Input	Reference ground for analog red input	62
SOGIN0	Analog Input	Sync-on-green input	61
GIN0	Analog Input	Analog green input	60
GIN0M	Analog Input	Reference ground for analog green input	59
BIN0	Analog Input	Analog blue input	58
BIN0M	Analog Input	Reference ground for analog blue input	57
REXT		External resistor 390 ohm to AVDD	52

LVDS Interface

Pin Name	Pin Type	Function	Pin
LVA0M	Output	Negative LVDS Differential Data Output	113
LVA0P	Output	Positive LVDS Differential Data Output	112
LVA1M	Output	Negative LVDS Differential Data Output	111
LVA1P	Output	Positive LVDS Differential Data Output	110
LVA2M	Output	Negative LVDS Differential Data Output	109
LVA2P	Output	Positive LVDS Differential Data Output	108
LVA3M	Output	Negative LVDS Differential Data Output	103
LVA3P	Output	Positive LVDS Differential Data Output	102
LVACKM	Output	Negative LVDS Differential Clock Output	107
LVACKP	Output	Positive LVDS Differential Clock Output	106

GPIO Interface

Pin Name	Pin Type	Function	Pin
GOUT1/PWM1	Output	GOUT1/PWM1; 4mA driving strength	74
GOUT0/PWM0	Output	GOUT0/PWM0; 4mA driving strength	73

Misc. Interface

Pin Name	Pin Type	Function	Pin
BYPASS		For External Bypass Capacitor	3
XIN	Crystal Oscillator Input	Xin	33
XOUT	Crystal Oscillator Output	Xout	34

Power Pins

Pin Name	Pin Type	Function	Pin
AVDD	3.3V Power	ADC Power	45, 51, 55, 65
AVSS	Ground	ADC Ground	39, 42, 48, 56, 64, 68
AVDD_PLL	3.3V Power	PLL Power	53
AVSS_PLL	Ground	PLL Ground	54
AVDD_MPLL	3.3V Power	MPLL Power	35
AVSS_MPLL	Ground	MPLL Ground	2, 36
VDDP	3.3V Power	Digital Output Power	11, 21, 84, 94, 104, 114, 126

Pin Name	Pin Type	Function	Pin
GNDP	Ground	Digital Output Ground	10, 20, 85, 95, 105, 115, 127
VDDC	2.5V Power	Digital Core Power	18, 87, 97, 117
GNDC	Ground	Digital Core Ground	19, 86, 96, 116

No Connects

Pin Name	Pin Type	Function	Pin
NC		No Connect. Leave These Pins Floating.	1, 4, 5, 7-9, 12-17, 22-29, 40, 41, 43, 44, 46, 47, 49, 50, 75, 76, 79-83, 88-93, 98-101, 118-125, 128

AIC1084-33PM (U202): DC power convert, used to 5v convert 3.3v.

RT9164-25PL (U201): DC power convert, used to 5v convert 2.5v.

W78E065A40PL (U601):

The W78E65 is an 8-bit microcontroller which has an in-system programmable Flash EPROM for firmware updating. The instruction set of the W78E65 is fully compatible with the standard 8052. The W78E65 contains a 64K bytes of main ROM and a 4K bytes of auxiliary ROM which allows the contents of the 64KB main ROM to be updated by the loader program located at the 4KB auxiliary ROM; 256+1K bytes of on-chip RAM; four 8-bit bi-directional and bit-addressable I/O ports; an additional 4-bit port P4; three 16-bit timer/counters; a serial port. These peripherals are supported by a eight sources two-level interrupt capability. To facilitate programming and verification, the ROM inside the W78E65 allows the program memory to be programmed and read electronically. Once the code is confirmed, the user can protect the code for security.

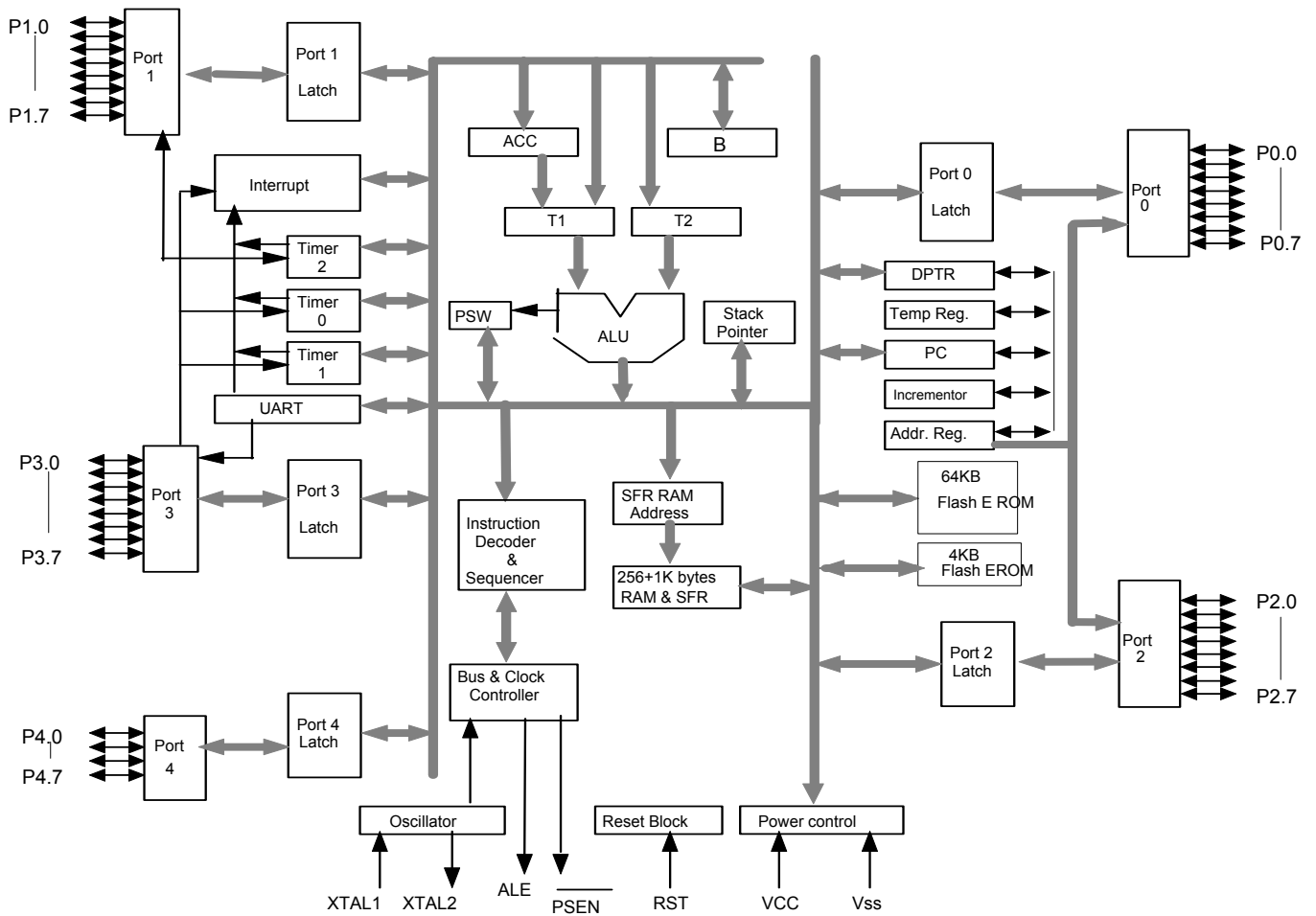
The W78E65 microcontroller has two power reduction modes, idle mode and power-down mode, both of which are software selectable. The idle mode turns off the processor clock but allows for continued peripheral operation. The power-down mode stops the crystal oscillator for minimum power consumption. The external clock can be stopped at any time and in any state without affecting the processor.

PIN Descriptions:

SYMBOL	TYPE	DESCRIPTIONS
\overline{EA}	I	EXTERNAL ACCESS ENABLE: This pin forces the processor to execute the external ROM. The ROM address and data will not be presented on the bus if the \overline{EA} pin is high.
\overline{PSEN}	O H	PROGRAM STORE ENABLE: \overline{PSEN} enables the external ROM data in the Port 0 address/data bus. When internal ROM access is performed, no \overline{PSEN} strobe signal outputs originate from this pin.
ALE	O H	ADDRESS LATCH ENABLE: ALE is used to enable the address latch that separates the address from the data on Port 0. ALE runs at 1/6th of the oscillator frequency.
RST	I L	RESET: A high on this pin for two machine cycles while the oscillator is running resets the device.
XTAL1	I	CRYSTAL 1: This is the crystal oscillator input. This pin may be driven by an external clock.
XTAL2	O	CRYSTAL 2: This is the crystal oscillator output. It is the inversion of XTAL1.
VSS	I	GROUND: ground potential.
VDD	I	POWER SUPPLY: Supply voltage for operation.
P0.0–P0.7	I/O D	PORT 0: Function is the same as that of standard 8052.
P1.0–P1.7	I/O H	PORT 1: Function is the same as that of standard 8052.
P2.0–P2.7	I/O H	PORT 2: Port 2 is a bi-directional I/O port with internal pull-ups. This port also provides the upper address bits for accesses to external memory. The P2.6 and P2.7 also provide the alternate function \overline{REBOOT} which is H/W reboot from LD flash.
P3.0–P3.7	I/O H	PORT 3: Function is the same as that of the standard 8052.
P4.0–P4.7	I/O H	PORT 4: A bi-directional I/O. The P4.3 also provide the alternate function \overline{REBOOT} which is H/W reboot from LD flash.

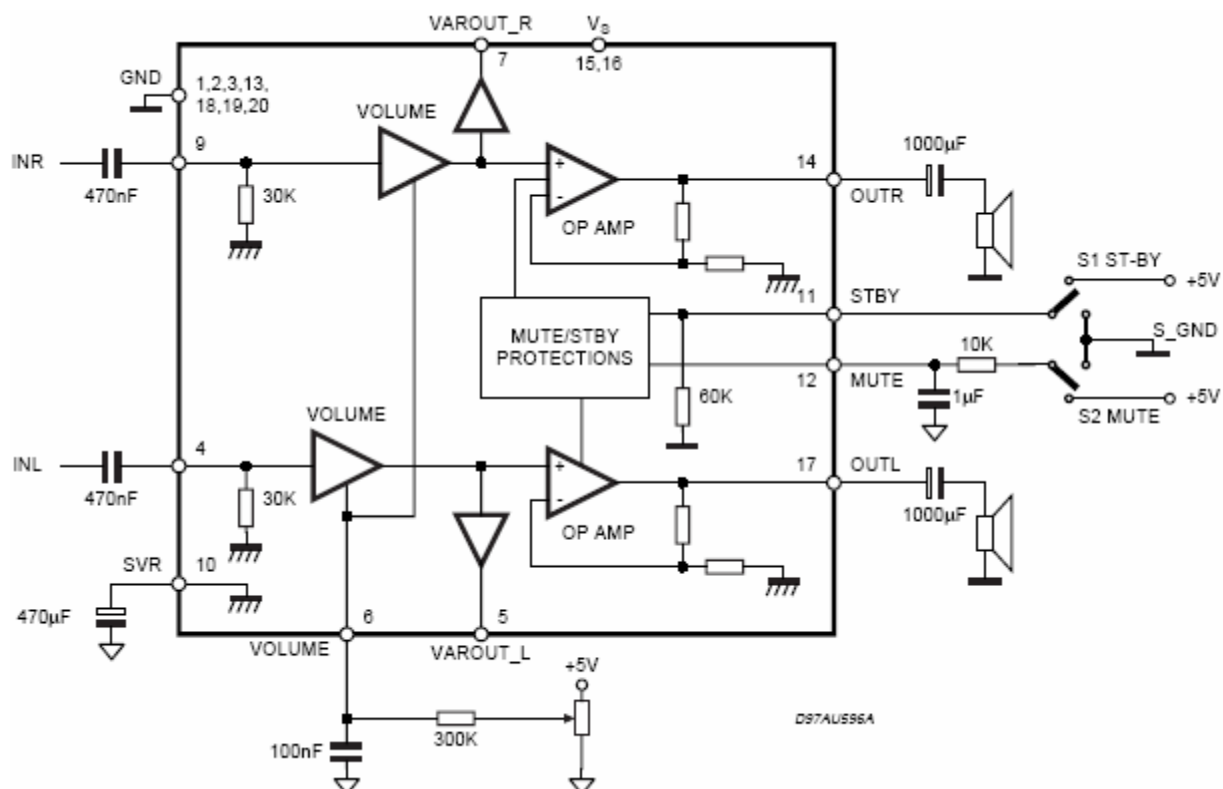
* Note: TYPE I: input, O: output, I/O: bi-directional, H: pull-high, L: pull-low, D: open drain

Circuit Diagram

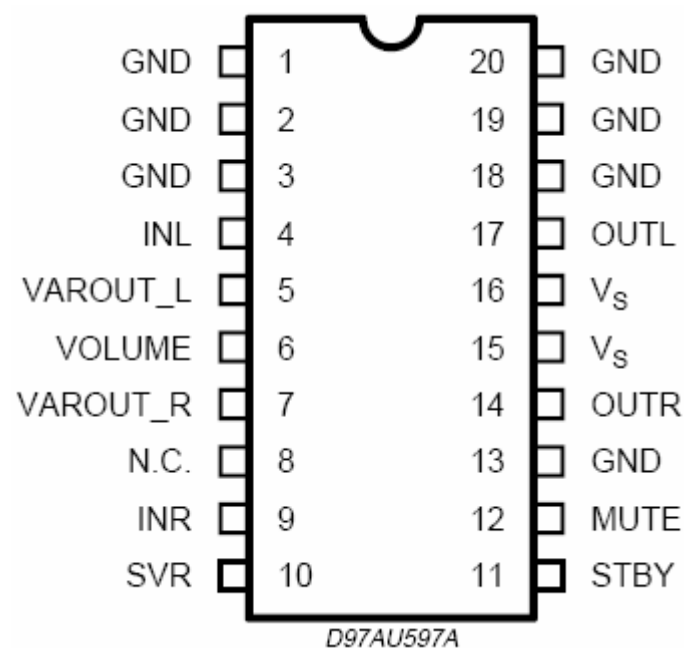


TDA7496(U201): The TDA7496L is a stereo 2W+2W class AB power amplifier assembled in the @ Powerdip 14+3+3 package, specially designed for high quality sound, TV and Monitor applications. Features of the TDA7496L include linear volume control, Stand-by and mute functions. The function of each pin and the inside circuit diagram are as follows:

Block Diagram



PIN Function



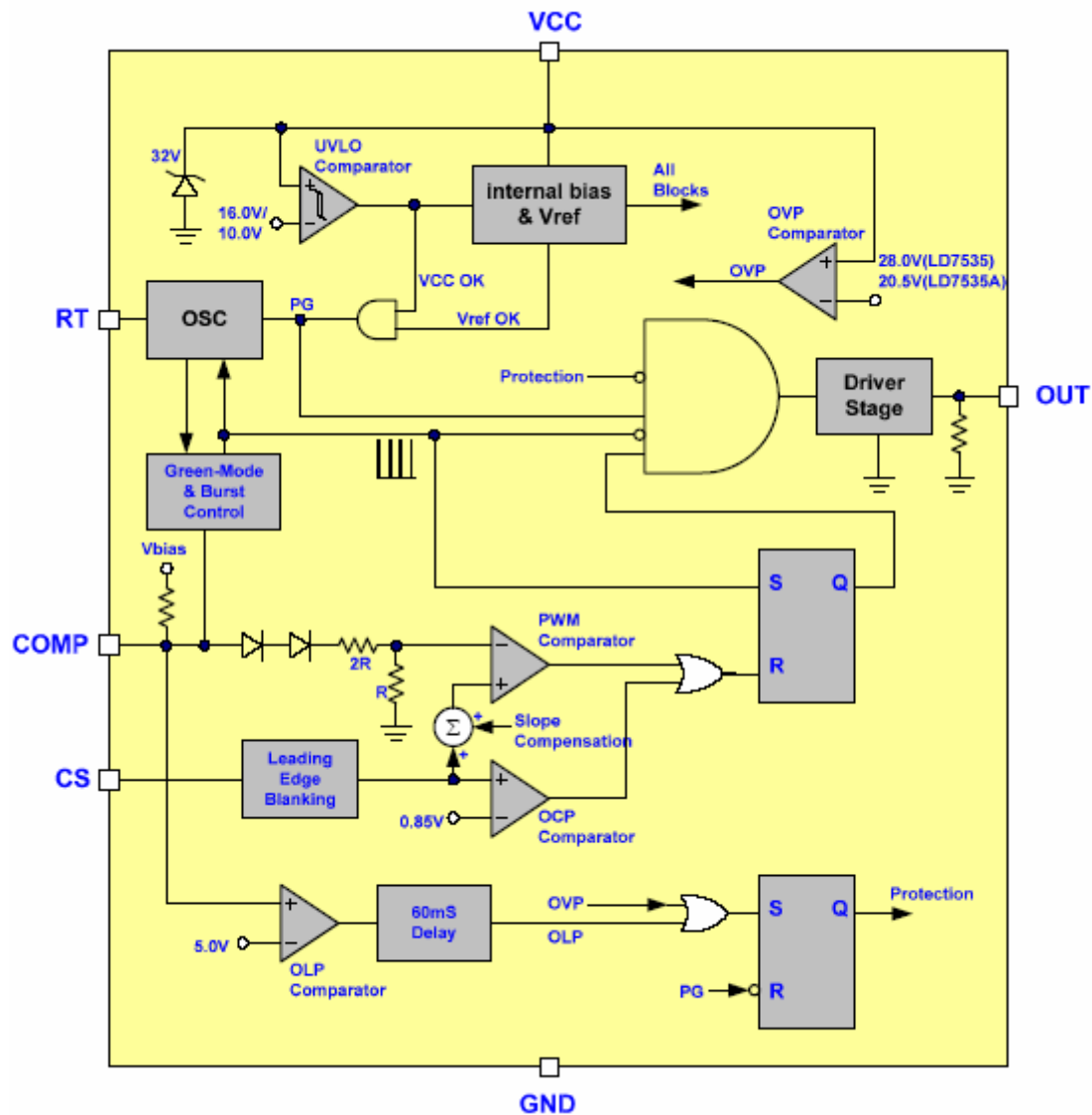
LD7552BPN (IC901): The LD7552B are low cost, low startup current, current mode PWM controllers with green-mode power- saving operation. The integrated functions include the leading-edge blanking of the current sensing, internal slope compensation. They provide the users a superior AC/DC power application of higher efficiency, low external component counts, and lower cost solution. Furthermore, LD7552B feature more protections like OLP (Over Load Protection) and OVP (Over Voltage Protection) to eliminate the external protection circuits. It is designed for the switching adaptor with 30W~60W output, offered in both SOP-8 and DIP-8 package.

The function of each pin and the inside circuit diagram are as follows:

PIN Descriptions:

PIN	NAME	FUNCTION
1	GND	Ground
2	COMP	Voltage feedback pin (same as the COMP pin in UC384X), By connecting a photo-coupler to close the control loop and achieve the regulation.
3	VCC	Supply voltage pin
4	RT	This pin is to program the switching frequency. By connecting a resistor to ground to set the switching frequency.
5	NC	Unconnected pin
6	CS	Current sense pin, connect to sense the MOSFET current
7	VCC	Supply voltage pin
8	OUT	Gate drive output to drive the external MOSFET

Block Diagram



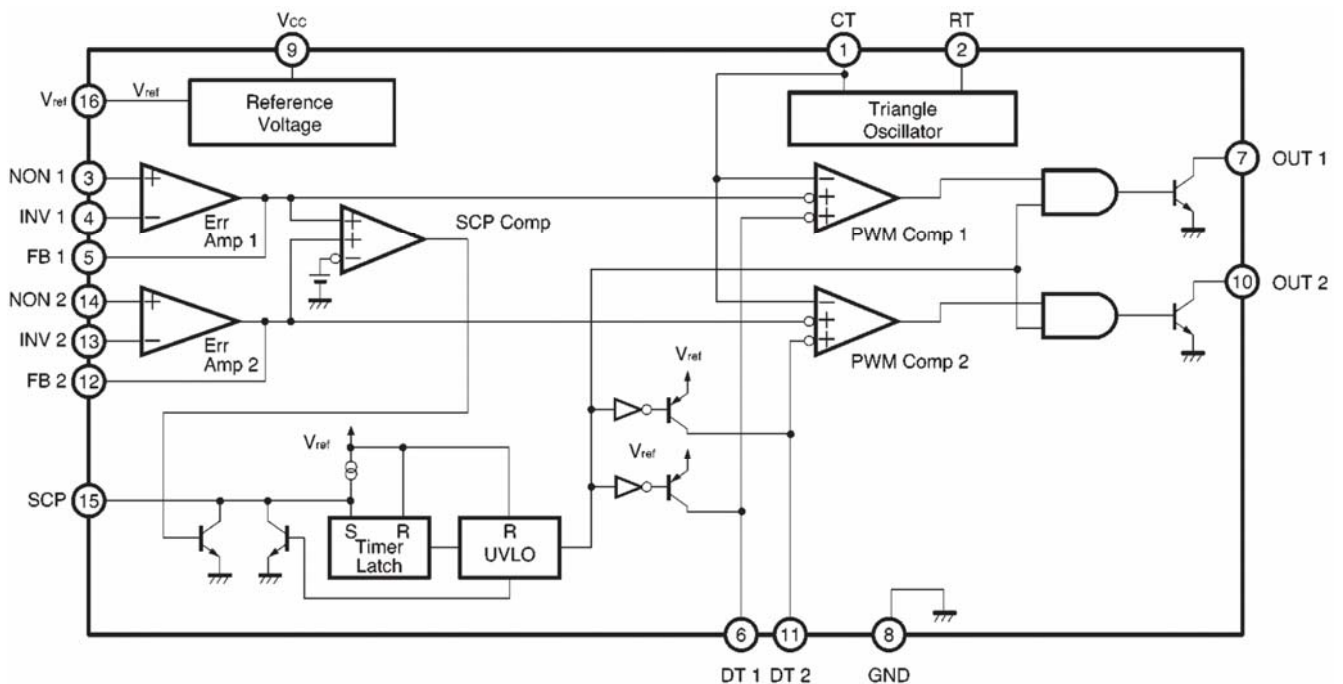
BA9741F (U201): The BA9741F is a timer latch, short-circuit protection circuit is built in. Circuit to prevent malfunction during low input voltage is built in. Built-in reference voltage(2.5v)circuit with output pin. Dead time over the whole range of possible to adjust half period of whole duty range. Recommendable for regulator in camcorder.

The function of each pin and the circuit diagram inside are as follows:

PIN Descriptions:

Pin	Names	Function
1	CT	External timing capacitance
2	RT	External timing resistance
3	NON1	Positive input for error amplifier 1
4	INV1	Negative input for error amplifier 1
5	FB1	Output for error amplifier 1
6	DT1	Output 1 dead time/soft start setting
7	OUT1	Output 1
8	GND	Ground
9	Vcc	Power Supply
10	OUT2	Output 2
11	DT2	Output 2 dead time/soft start setting
12	FB2	Output for error amplifier 2
13	INV2	Negative input for error amplifier 2
14	NON2	Positive input for error amplifier 2
15	SCP	Timing latch setting
16	VREF	Reference voltage(2.5v) output

Block Diagram



5. Adjustment Procedure

5.1 ADJUSTMENT CONDITIONS AND PRECAUTIONS

1. Approximately 30 minutes should be allowed for warm up before proceeding.
2. Adjustments should be undertaken only on those necessary elements since most of them have been carefully preset at the factory.
3. ESD protection is needed before adjustment.

5.2 MAIN ADJUSTMENTS

NO.	FUNCTIONS	DESIGNATION
1.	White Balance	Function Key
2.	Geometry	Function Key

5.3 ALIGNMENT PROCEDURES

Approximately 30 minutes should be allowed for warm up before proceeding White-Balance adjustment.

1. Adjust of White Balance

1.)How to do the Chroma-7120 MEM .Channel setting

A. Reference to chroma 7120 user guide

B. Use “**SC**” key and “**NEXT**” key to modify xyY value and use “**ID**” key to modify the TEXT description Following is the procedure to do white-balance adjust

2.)Setting the color temp. You want

A. MEM.CHANNEL9 (9300 color):

9300 color temp. parameter is $Wx = 0.283 \pm 0.03$; $Wy = 0.298 \pm 0.03$;
 $Y = 200 \pm 20 \text{ cd/m}^2$.

B. MEM.CHANNEL10 (6500 color):

6500 color temp. parameter is $Wx = 0.313 \pm 0.03$; $Wy = 0.329 \pm 0.03$;
 $Y = 200 \pm 20 \text{ cd/m}^2$.

C. MEM.CHANNEL10 (SRGB color):

6500 color temp. parameter is $Wx = 0.313 \pm 0.03$; $Wy = 0.329 \pm 0.03$;
 $Y = 200 \pm 20 \text{ cd/m}^2$.

3.) Into factory mode of VA502mb

Turn on power, press the MENU button, pull out the power cord, and then plug the power cord. Then the factory OSD will be at the left top of the panel.

4.) Bias adjustment:

Set the **Contrast**  to 70

Adjust the **Brightness**  to 100.

5.) Gain adjustment:

Move cursor to “-F-” and press MENU key

A. Adjust 9300 color-temperature

- (1). Switch the Chroma-7120 to **RGB-Mode** (with press “MODE” button)
- (2). Switch the MEM. channel to Channel 9 (with up or down arrow on chroma 7120)
- (3). The LCD-indicator on chroma 7120 will show $x = 0.283 \pm 0.03$, $y = 0.298 \pm 0.03$, $Y = 200 \pm 20 \text{ cd/m}^2$
- (4). Adjust the RED of color1 on factory window until chroma 7120 indicator reached the value $R=100$
- (5). Adjust the GREEN of color1 on factory window until chroma 7120 indicator reached the value $G=100$
- (6). Adjust the BLUE of color1 on factory window until chroma 7120 indicator reached the value $B=100$
- (7). Repeat above procedure (item 4,5,6) until chroma 7120 RGB value meet the tolerance $=100 \pm 5$

B. Adjust 6500 color-temperature

- (1). Switch the chroma-7120 to **RGB-Mode** (with press “MODE” button)
- (2). Switch the MEM .channel to Channel 10(with up or down arrow on chroma 7120)
- (3). The LCD-indicator on chroma 7120 will show $x = 0.313 \pm 0.03$, $y = 0.329 \pm 0.03$, $Y = 200 \pm 20 \text{ cd/m}^2$
- (4). Adjust the RED of color3 on factory window until chroma 7120 indicator reached the value $R=100$
- (5). Adjust the GREEN of color3 on factory window until chroma 7120 indicator reached the value $G=100$
- (6). Adjust the BLUE of color3 on factory window until chroma 7120 indicator reached the value $B=100$
- (7). Repeat above procedure (item 4,5,6) until chroma 7120 RGB value meet the tolerance $=100 \pm 5$

C. Adjust SRGB color-temperature

- (1). Switch the chroma-7120 to **RGB-Mode** (with press "MODE" button)
- (2). Switch the MEM .channel to Channel 10(with up or down arrow on chroma 7120)
- (3). The LCD-indicator on chroma 7120 will show $x = 0.313 \pm 0.03$, $y = 0.329 \pm 0.03$, $Y = 200 \pm 20 \text{ cd/m}^2$
- (4). Adjust the RED of color3 on factory window until chroma 7120 indicator reached the value $R=100$
- (5). Adjust the GREEN of color3 on factory window until chroma 7120 indicator reached the value $G=100$
- (6). Adjust the BLUE of color3 on factory window until chroma 7120 indicator reached the value $B=100$
- (7). Repeat above procedure (item 4,5,6) until chroma 7120 RGB value meet the tolerance $=100 \pm 5$

E. Press reset key and Turn the Power-button "off to on" to quit from factory mode.

2. Geometry

- 1).Set cross-hatch pattern and preset timing as timing table listed.
- 2).Change to each mode in turn and wait for the monitor finish auto-alignment and save press before change to next mode.
- 3).Until all of modes are adjusted, exit OSD menu and press POWER OFF to exit factory mode.

5.4 Factory Defaults

Item	Defaults	Item	Defaults
Contrast	70%	Volume	50% (For VA702mb only)
Brightness	100%	Balance	N/A
Color Temperature	6500K	Treble	N/A
Sharpness	0%	Bass	N/A
OSD H. Position	50%	720x400/640x400	720x400
OSD V. Position	50%	640x480@60Hz 720x480@60Hz	640x480@60Hz
OSD Time Out	15 Sec	In SOG and Composite, 720x480@60Hz 640x480@60Hz	N/A
OSD Background	Enabled	In SOG and Composite, 1152x864@75Hz 1152x870@75Hz	N/A
Resolution Notice	Enabled	In SOG and Composite, 1280x768@60/75/85Hz 1024x768@60/75/85Hz	N/A

5.5 Function Test

1 Product: 17" LCD Monitor

2 Test Equipment: Color Video Signal & Pattern (or PC with SXGA resolution and a sound card)

3 Test Condition: Before function test and alignment, each LCD Monitor should be warmed up for at least 30 minutes with the following conditions:

(a) In room temperature,

(b) With full-white screen, RGB, and Black

(c) With cycled display modes,

640*480 (H=43.27kHz, V=85Hz)

800*600 (H=53.7kHz, V=85Hz)

1024*768 (H=68.67kHz, V=85Hz)

1280*1024 (H=79.97kHz, V=75Hz)


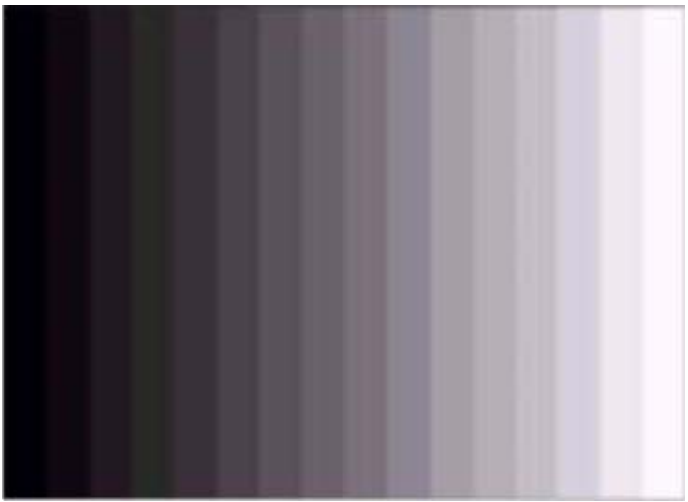



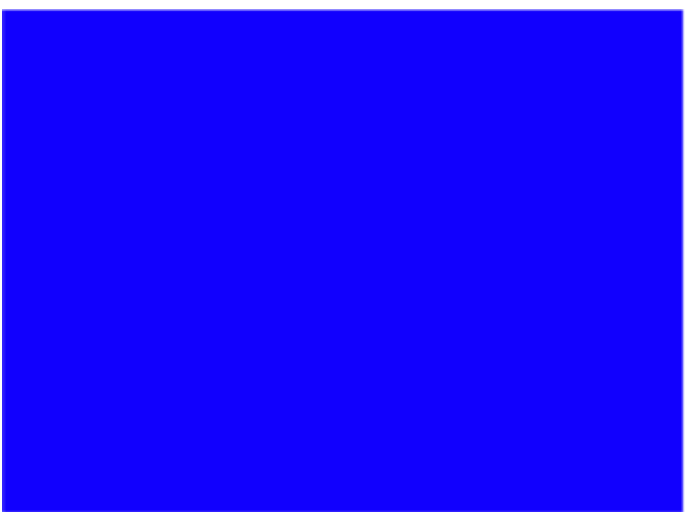
4 Test Display Modes & Pattern


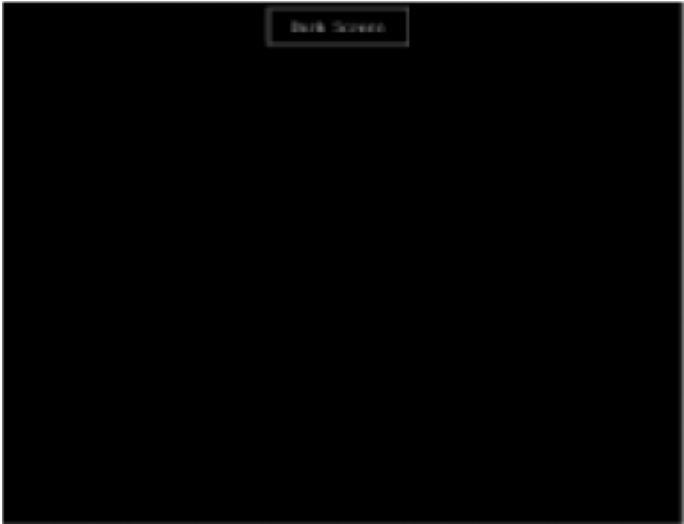
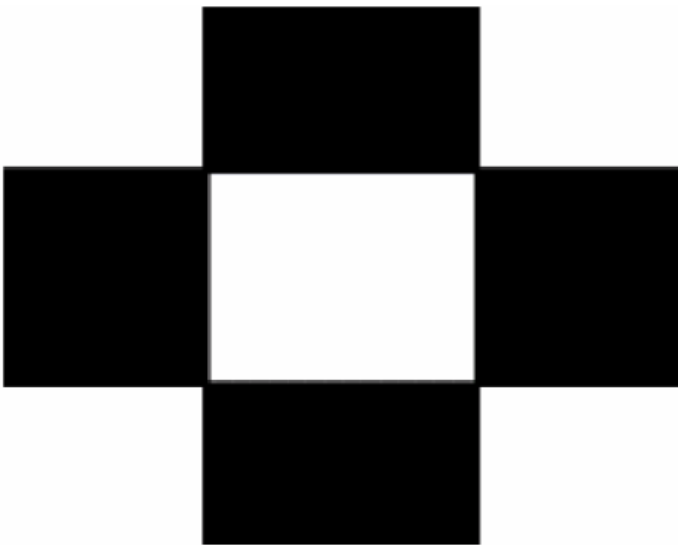
Compatible Modes

Item	Timing	Analog
1	640 x 350 @ 70Hz, 31.5kHz	Yes
2	640 x 480 @ 50Hz	Yes
3	640 x 480 @ 60Hz, 31.5kHz	Yes
4	640 x 480 @ 67Hz, 35.0kHz	Yes
5	640 x 480 @ 72Hz, 37.9kHz	Yes
6	640 x 480 @ 75Hz, 37.5kHz	Yes
7	640 x 480 @ 85Hz, 43.27kHz	Yes
8	720 x 400 @ 70Hz, 31.5kHz	Yes
9	800 x 600 @ 56Hz, 35.1kHz	Yes
10	800 x 600 @ 60Hz, 37.9kHz	Yes
11	800 x 600 @ 72Hz, 48.1kHz	Yes
12	800 x 600 @ 75Hz, 46.9kHz	Yes
13	800 x 600 @ 85Hz, 53.7kHz	Yes
14	832 x 624 @ 75Hz, 49.7kHz	Yes
15	1024 x 768 @ 60Hz, 48.4kHz	Yes
16	1024 x 768 @ 70Hz, 56.5kHz	Yes
17	1024 x 768 @ 72Hz, 58.1kHz	Yes
18	1024 x 768 @ 75Hz, 60.0kHz	Yes
19	1024 x 768 @ 85Hz	Yes
20	1152 x 864 @ 75Hz	Yes
21	1152 x 870 @ 75Hz	Yes
22	1280 x 720 @ 60Hz	Yes
23	1280 x 960 @ 60Hz	Yes
24	1280 x 960 @ 75Hz	Yes
25	1280 x 1024 @ 60Hz	Yes
26	1280 x 1024 @ 75Hz	Yes

Function Test Display Pattern

Item	Test Content	Pattern	Specification	Remark
1	Frequency & Tracking	Fine Line Moire	Eliminate visual wavy noise.	Figure 1
2	Contrast/Brightness	16 Gray Scale	16 gray levels sh should be distinguishable.	Figure 2
3	Boundary	Horizontal&Vertical Thickness	Horizontal and Vertical position of video should be adjustable to be within the screen frame.	Figure 3
4	RGB Color Performance	RGB Color Intensities	Contrast of each R, G, B, color should be normal.	Figure 4,5,6
5	Screen Uniformity & Flicker	Full White	Should be compliant with the spec.	Figure 7
6	Dead Pixel/Line	White Screen & Dark Screen	The numbers of dead pixels should be compliant with the spec.	Figure 7,8
7	White Balance	White & Black Pattern	The screen must have the pure white and black pattern, no other color.	Figure 9

	
<p>Fine Line Morie Pattern (Figure1)</p>	<p>Gray Scale Pattern (Figure2)</p>
	
<p>Horizontal & Vertical Thickness Pattern (Figure 3)</p>	<p>R. Color Pattern (Figure 4)</p>
	
<p>G. Color Pattern (Figure 5)</p>	<p>B. Color Pattern (Figure 6)</p>

	
Full White Pattern (Figure 7)	Dark Screen Pattern (Figure 8)
	
Black-White Pattern (Figure 9)	

4.3 Function Test and Alignment Procedure

All Modes Reset

You should do “All Mode Reset” (Refer to Chapter III-3. Hot Keys for Function Controls) first. This action will allow you to erase all end-user’s settings and restore the factory defaults.

Auto Image Adjust

Please select and enter “Auto Image Adjust” function on Main Menu to see if it is workable. The “Auto Image Adjust” function is aimed to offer a better screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

Firmware

Test Pattern: Burn In Mode (Refer to Chapter III-3. Hot Keys for Function Controls)

- Make sure the F/W is the latest version.

DDC

Test Pattern: EDID program
Make sure it can pass test program.

Fine Tune and Sharpness

Test Signal: 1280*1024@60Hz

Test Pattern: Line Moire Pattern

Check and see if the image has noise and focus performs well. Eliminate visual line bar.

If not, readjust by the following steps:

(a) Select and enter “Fine Tune” function on “Manual Image Adjust” to adjust the image to eliminate visual wavy noise.

(b) Then, select and enter “Sharpness” function to adjust the clarity and focus of the screen image.

Boundary

Test Signal: 1280*1024@60Hz

Test Pattern: Horizontal & Vertical Line Thickness Pattern

Check and see if the image boundary is within the screen frame.

If not, readjust by the following steps:

(a) Select and enter “Manual Image Adjust” function on OSD Main Menu.

(b) Then, select and enter “Horizontal Size” or “Horizontal/Vertical Position” function to adjust the video boundary to be full scanned and within screen frame.

White Balance

Test Signal: 640*480@60Hz

Test Pattern: White and Black Pattern

1.5.8 R, G, B, Colors Contrast

Test Signal: 1280*1024@60Hz

Test Pattern: R, G, B, Color Intensities Pattern and 16 Gray Scale Pattern

- Check and see if each color is normal and distinguishable.
- If not, please return the unit to repair area.

Screen Uniformity and Flicker

Test Signal: 1280*1024@60Hz

Test Pattern: Full White Pattern

- Check and see if it is in normal condition.

1.5.10 Dead Pixel and Line

Test Signal: 1280*1024@60Hz

Test Pattern: Dark and White Screen Pattern

- Check and see if there are dead pixels on LCD panel with shadow gauge and filter film.
- The total numbers and distance of dead pixels should be compliant with the spec.

Mura

Test Pattern: White, RGB, Black, & Grey

Test Tool: 10% ND Filter

- Check if the Mura can pass 10% ND Filter.

Audio

Test Signal: Voice signal (optional, depend on model)

Test Pattern: liberty

- Make sure there is audio output.
- Make sure that audio function (volume 80%) is working without noise and resonance.
- Make sure that the sound of right and left speakers are in balance.

Check for Secondary Display Modes

Test Signal:

Analog: 640*350@70Hz; 640*480@60/67/72/75/85Hz;

720*400@70Hz; 800*600@56/60/72/75/85Hz;

832*624@75Hz, 1024*768@60/70/72/75/85Hz;

1280*1024@60/75Hz

- Normally when the primary mode 1280*1024@60Hz is well adjusted and compliant with the specification, the secondary display modes will also be compliant with the spec. But we still have to check with the general test pattern to make sure every secondary is compliant with the specification.

All Modes Reset

After final QC step, we have to erase all saved changes again and restore the factory defaults. You should do "All Mode Reset" again.

Power Off Monitor

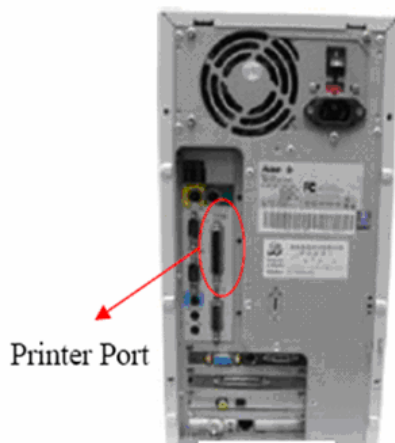
Turn off the monitor by pressing "Power" button.

5.6 Firmware Upgrade Procedure

When you receive the returned monitor, please check whether the firmware version is the latest. If not, please do the following procedures to upgrade it to the latest version.

1 Equipment Needed

- VA502mb/VA702mb Monitor
- Fixture for Firmware Upgrade
- Power Adapter (P/N: 47.58201.001) *1 for Fixture
- VGA Cable (P/N: 42.59901.003) *1(Pin 4, 11 should be connected to GND)
- PC (Personal Computer)
- LPT Cable (P/N: 42.59906.001) *1
- Firmware Upgrade Program
- One additional monitor for checking the program execution



Printer Port

PC



Fixture



VA502mb/VA702mb



Power Adapter for Fixture
(P/N: 47.58201.001)



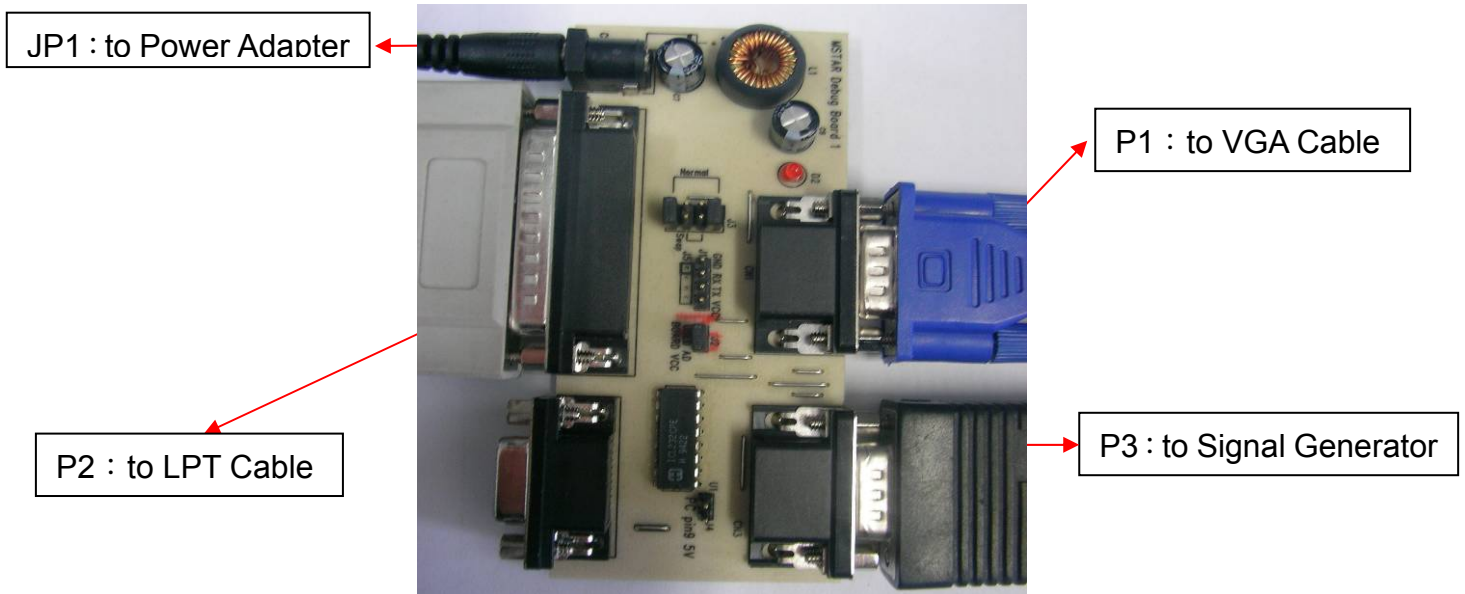
LPT Cable
(P/N: 42.59906.001)



VGA Cable
(P/N: 42.59901.003)

2 Setup Procedure

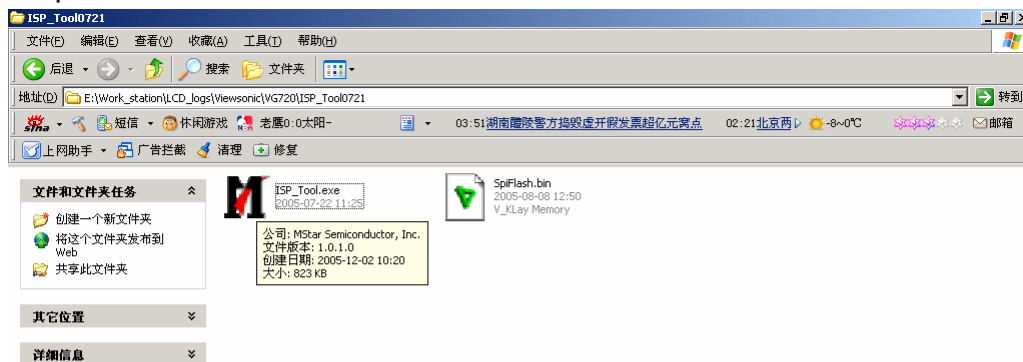
- 2.1 Connect P2 of Fixture with printer port of PC by LPT Cable.
- 2.2 Connect P1 of Fixture with VA502mb/VA702mb Monitor by VGA Cable.
- 2.3 Plug Power Adapter to Fixture.
- 2.4 Connect Power Cord to VA502m/VA702mb Monitor.
- 2.5 Connect P3 to the Signal Generator (eg.Chroma2326) for verifying it after the operation being completed.
- 2.6 Connect PC to the additional monitor.



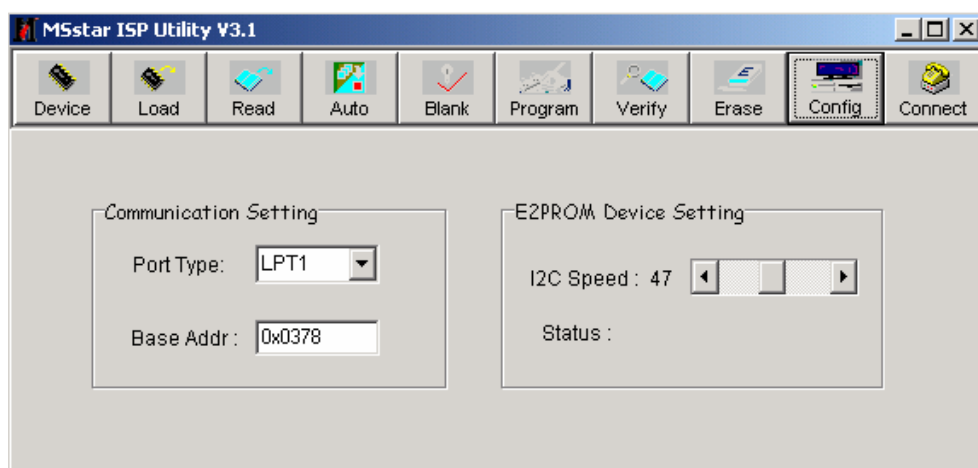
3 Firmware Upgrade Procedure

Step 1. Let VA502mb/VA702mb set to be connected with AC cable and VGA cable.

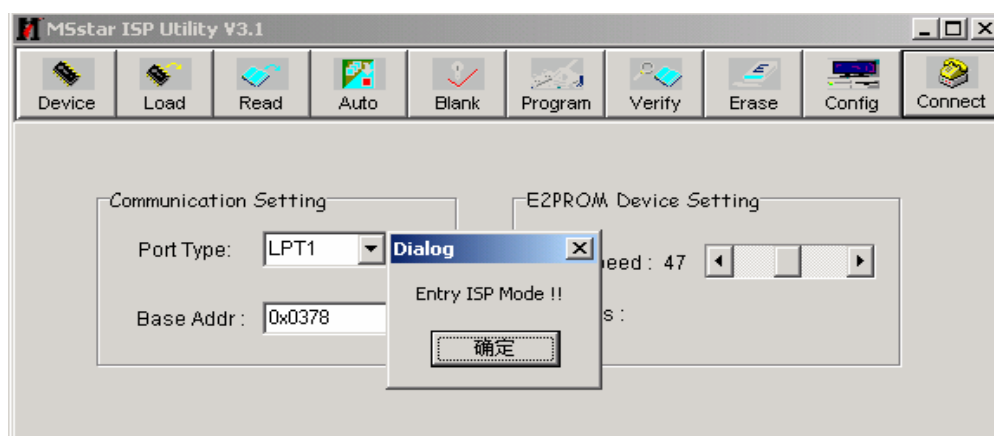
Step 2. Execute the MSStar ISP tool.



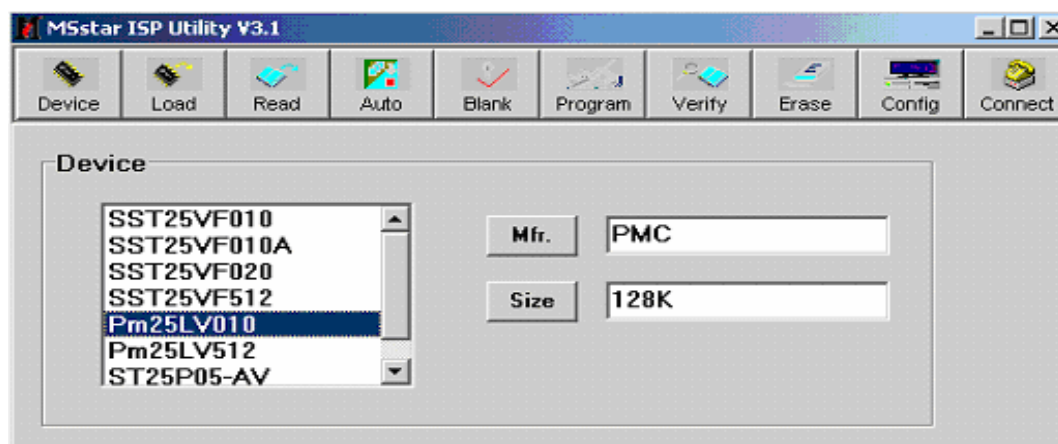
Step 3. Click “Config” button . Select the Port Type: LPT1 and the Base Addr : 0x378 on “Communication Setting” flame, and then the Speed: 47 on “E2PROM Device Setting” flame



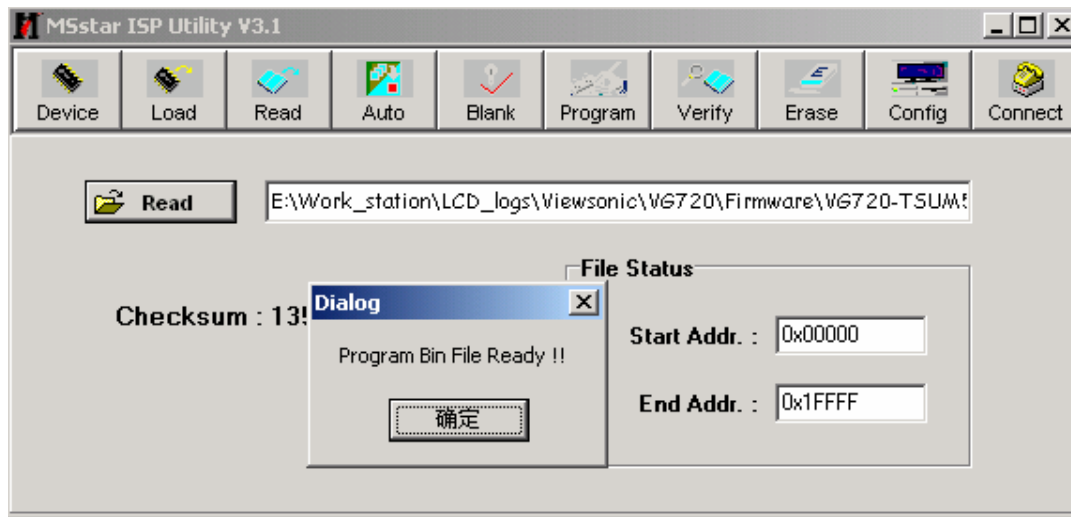
Step 4. Click “Connect” button. (On this step, if the connection is successful, the “Entry ISP Mode” Dialog will be showed. If not, the error dialog will be done.)



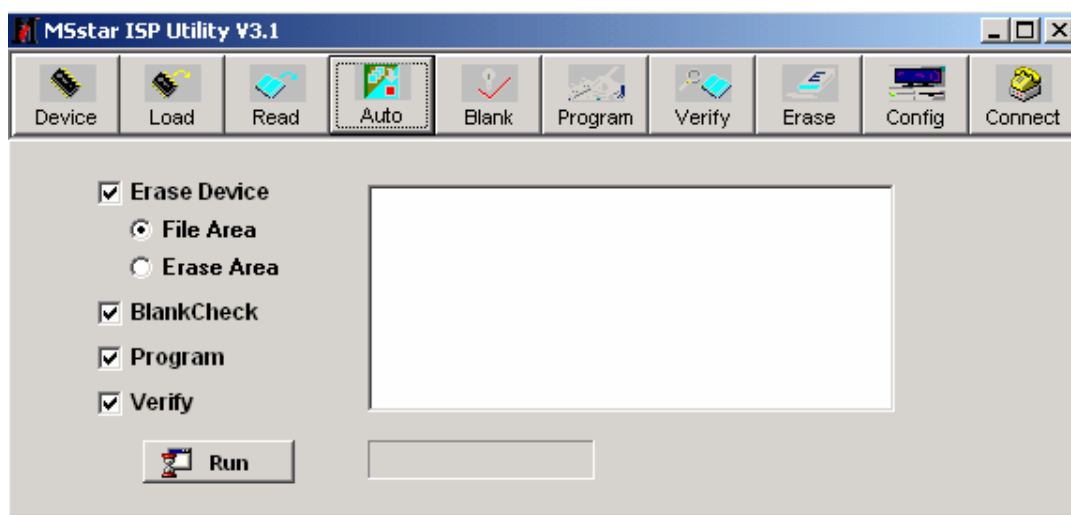
Step 5. Click “Device” button. Select the “PMC25LV010” or “SST25VF010” viewed on your set.



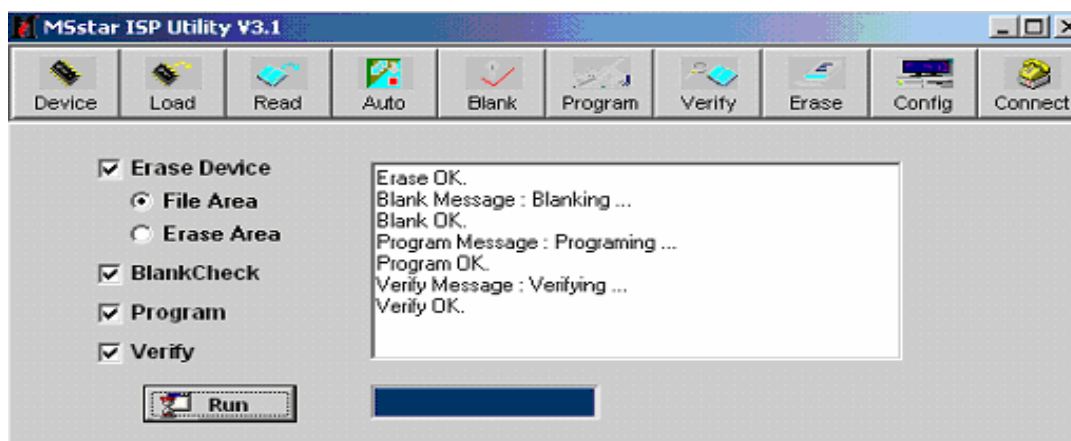
Step 6. Click “Read” button. Select the object bincode on your corresponding directory.



Step 7. Click “Auto” button. Execute the flashing action by clicking the “Run” button.



Step 8. If the flashing F/W has been completed, “Ok” message will be showed on the right TextBox.



Step 9. Unplug and replug power cord of VA502mb/VA702mb set and then check the OSD operation and image on screen.

Step 10. At last, do "Memory Recall."

3.2 Setup Procedure

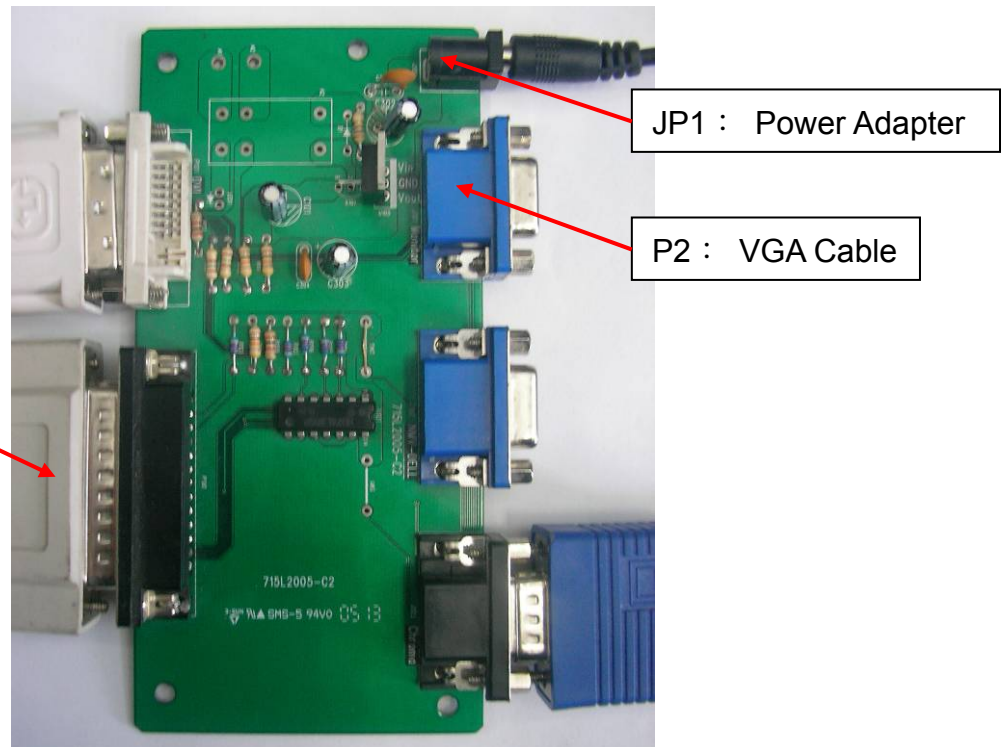
3.2.1 Connect P2 and monitor of Fixture with VGA ports of VA502mb/VA702mb by VGA Cable.

3.2.2 Connect P1 of Fixture with **Printer port** of PC by LPT Cable.

3.2.3 Plug Power Adapter to Fixture.

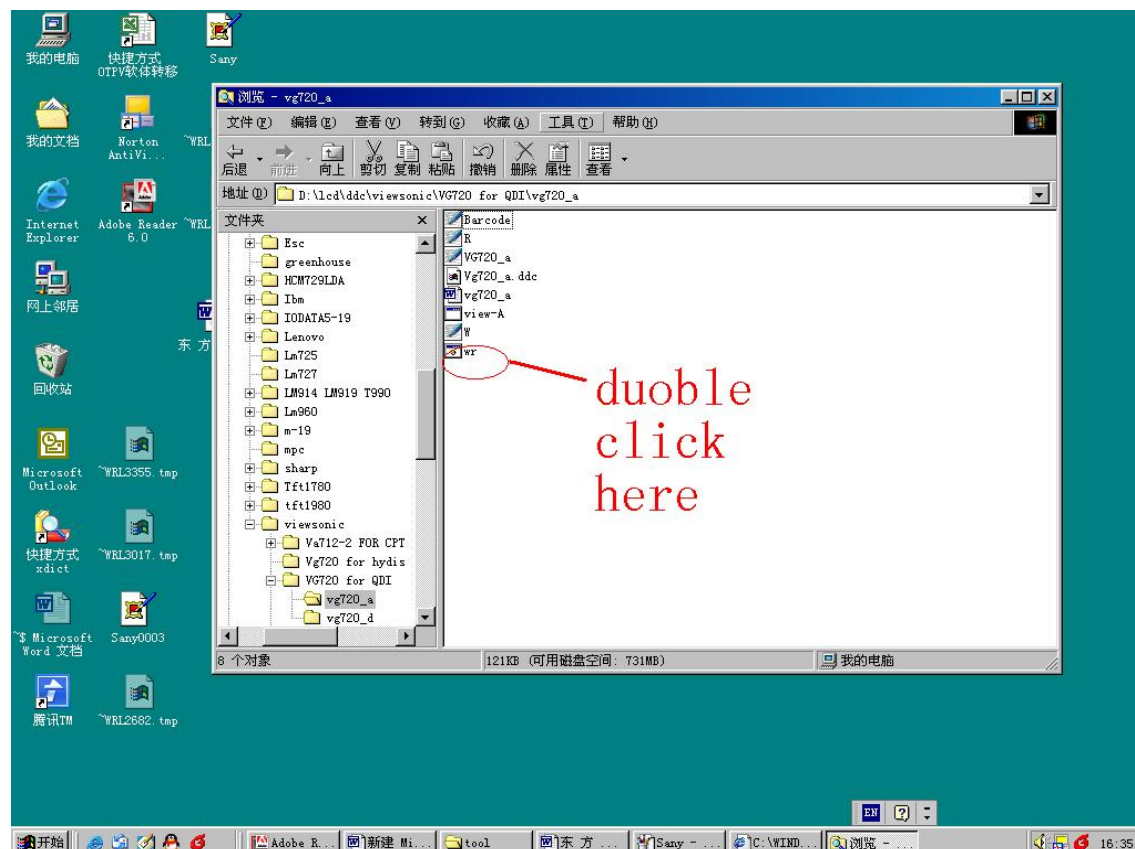
3.2.4 Connect Power Cord to VA502mb/VA702mb Monitor.

3.2.5 Connect PC to the additional monitor.



3.3 DDC Key In Procedure

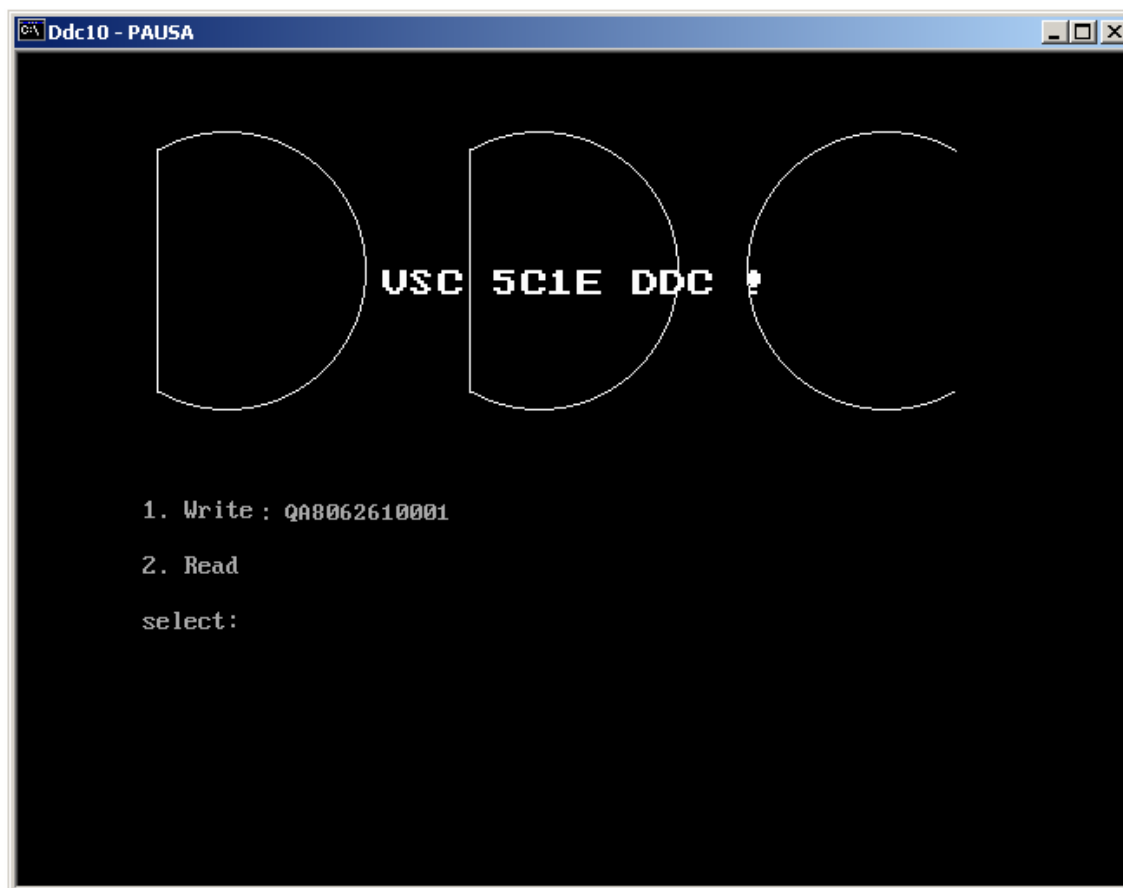
Sep1.Select and execute DDc Key In program



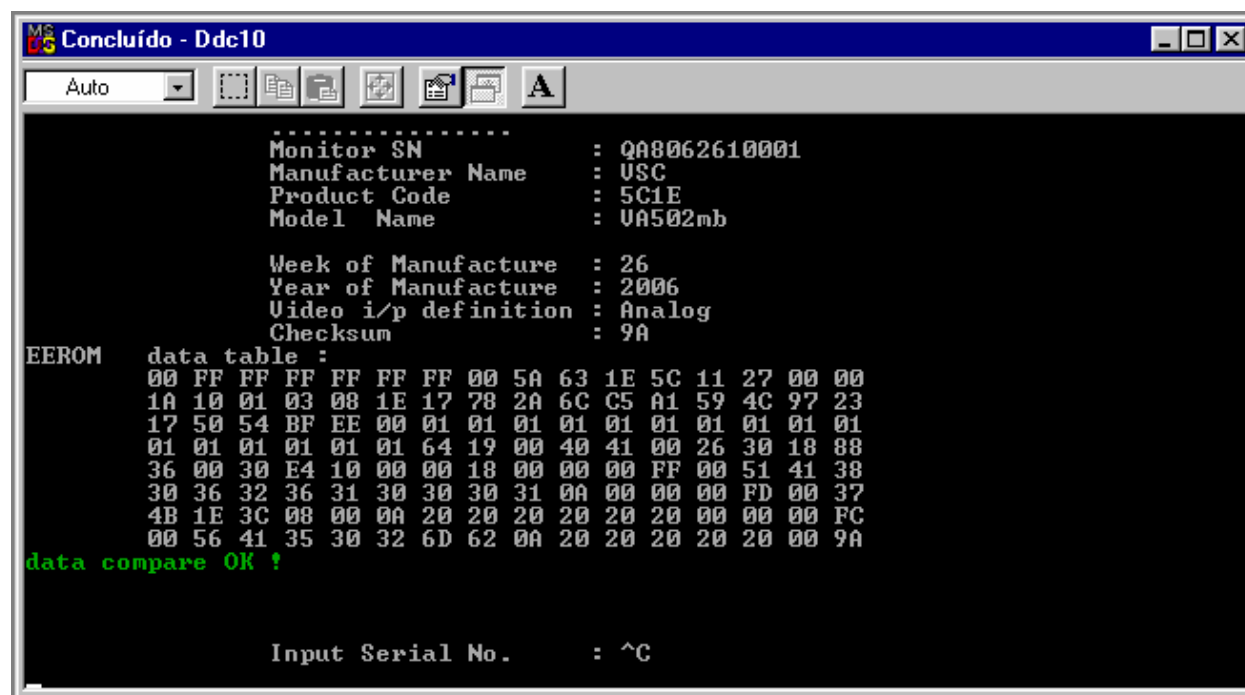
Sep2:Inpute the S/N and execute “Enter”



Sep3: Key the "Enter" and write the data



Sep4: If ddc program OK and show "data compare ok"

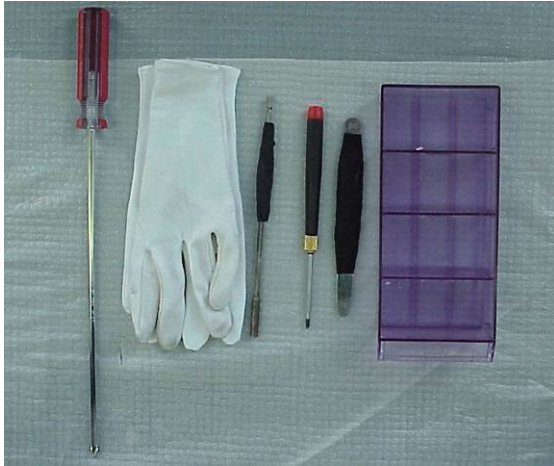


5.7 Packing Procedure



7.1 Units Disassemble Process

7.1.1 Tools



- ✧ Glove
- ✧ Big cross screwdriver
- ✧ Small cross screwdriver
- ✧ Prize equipment or abandoned IC card
- ✧ Screw box
- ✧ Cushion
- ✧ Six angle sleeve spanner

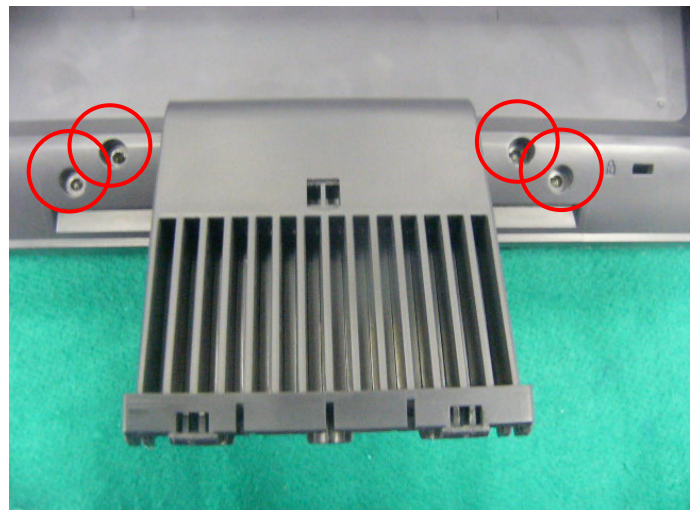
7.1.2 Disassemble process

- 1、 The whole monitor.(**Picture 1**)
- 2、 Remove the decorate slice and the stand.(**Picture 2, 3**)
- 3、 Disassemble the 4 screws that fix the back cover, remove the back cover. (**Picture 4**)
- 4、 Disassemble the shield and remove the aluminum foil . (**Picture 5,6**)
- 5、 Disassemble the screws for main board, power board, audio board and the connector or wire. (**Picture 7,8**)
- 6、 Disassemble the screws for the shielding. (**Picture 9,10**)
- 7、 The panel. (**Picture 11**)

7.1.3 Show pictures



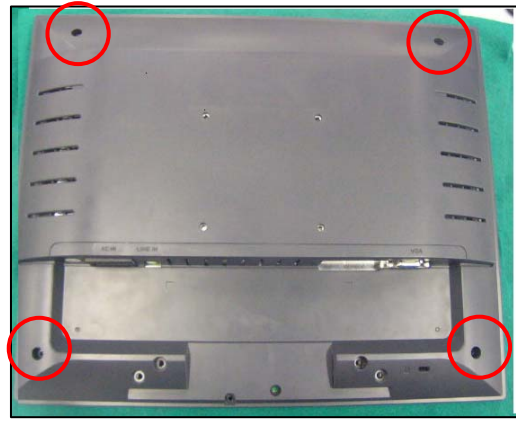
(Picture 1)



(Picture 2)



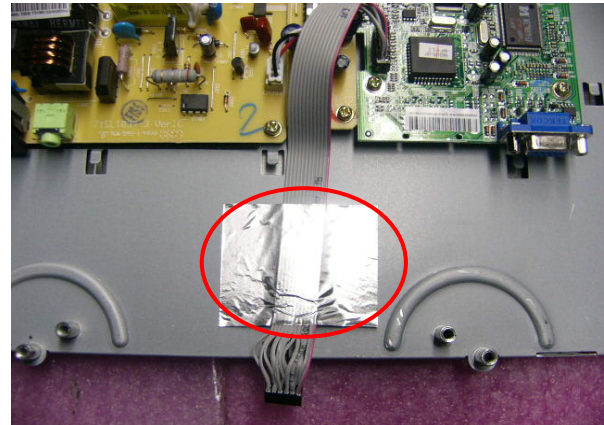
(Picture 3)



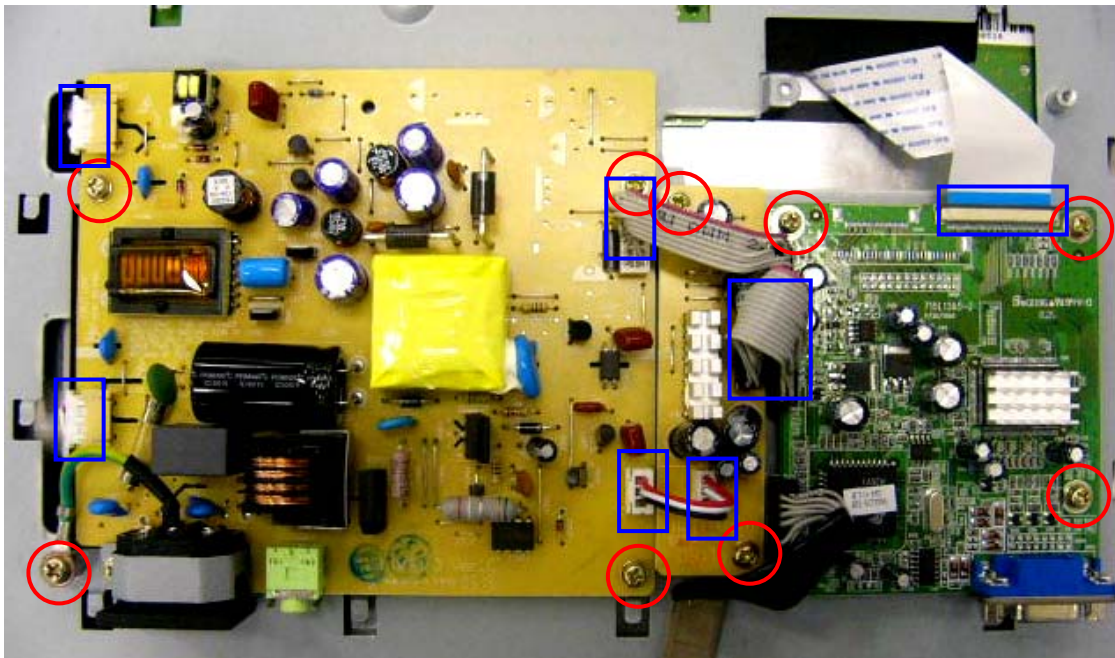
(Picture4)



(Picture 5)



(Picture 6)



(Picture 7)



(Picture 8)



(Picture 9)

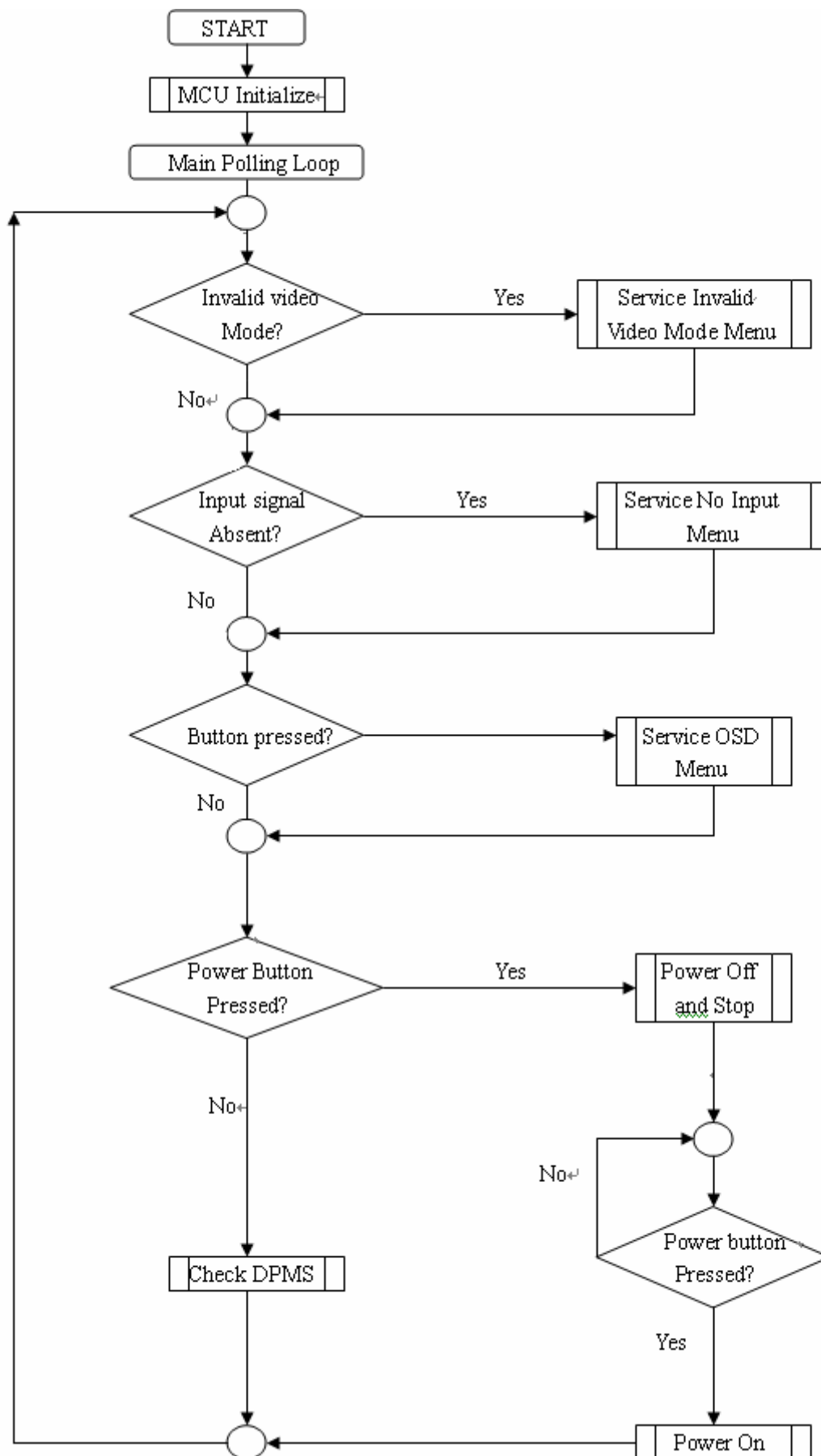


(Picture 10)

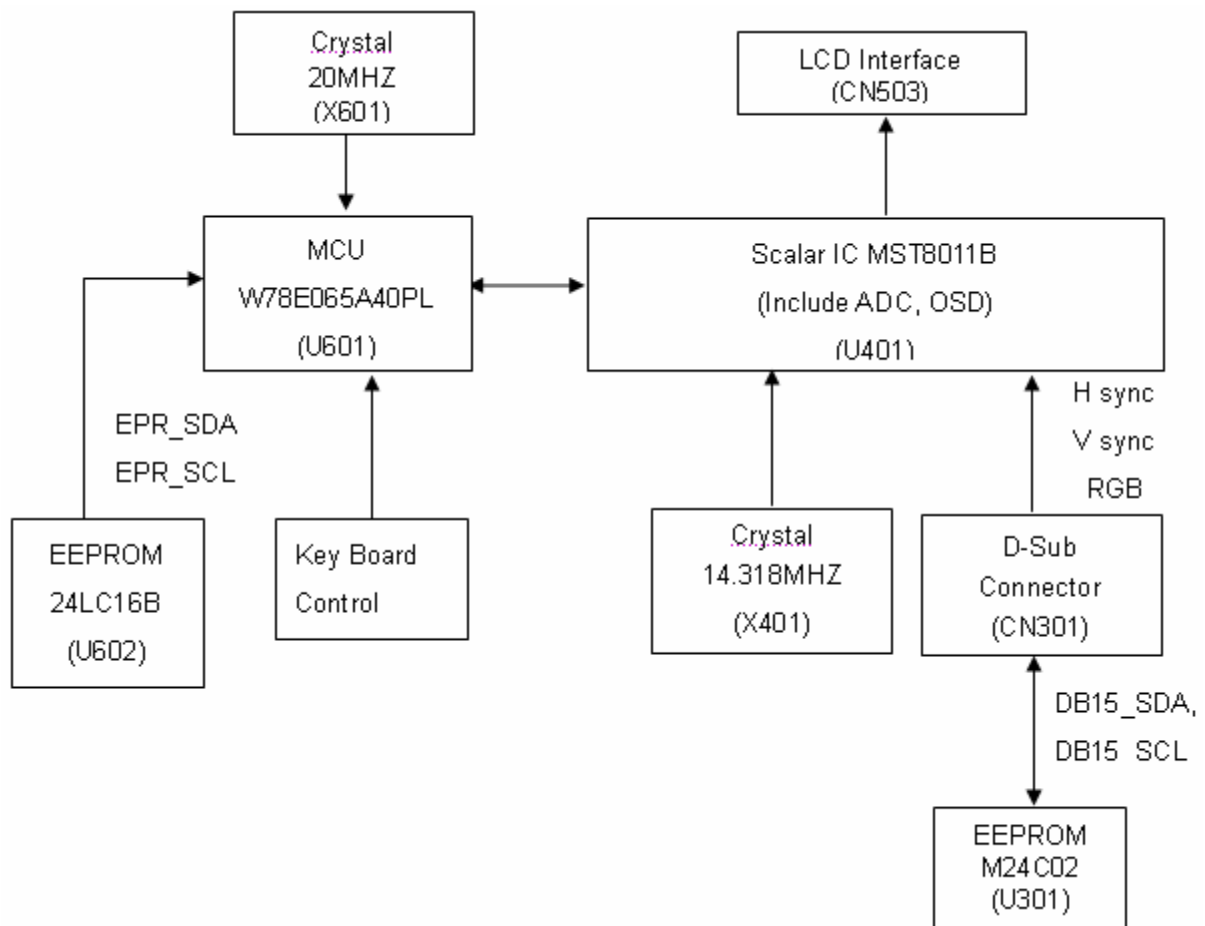


(Picture11)

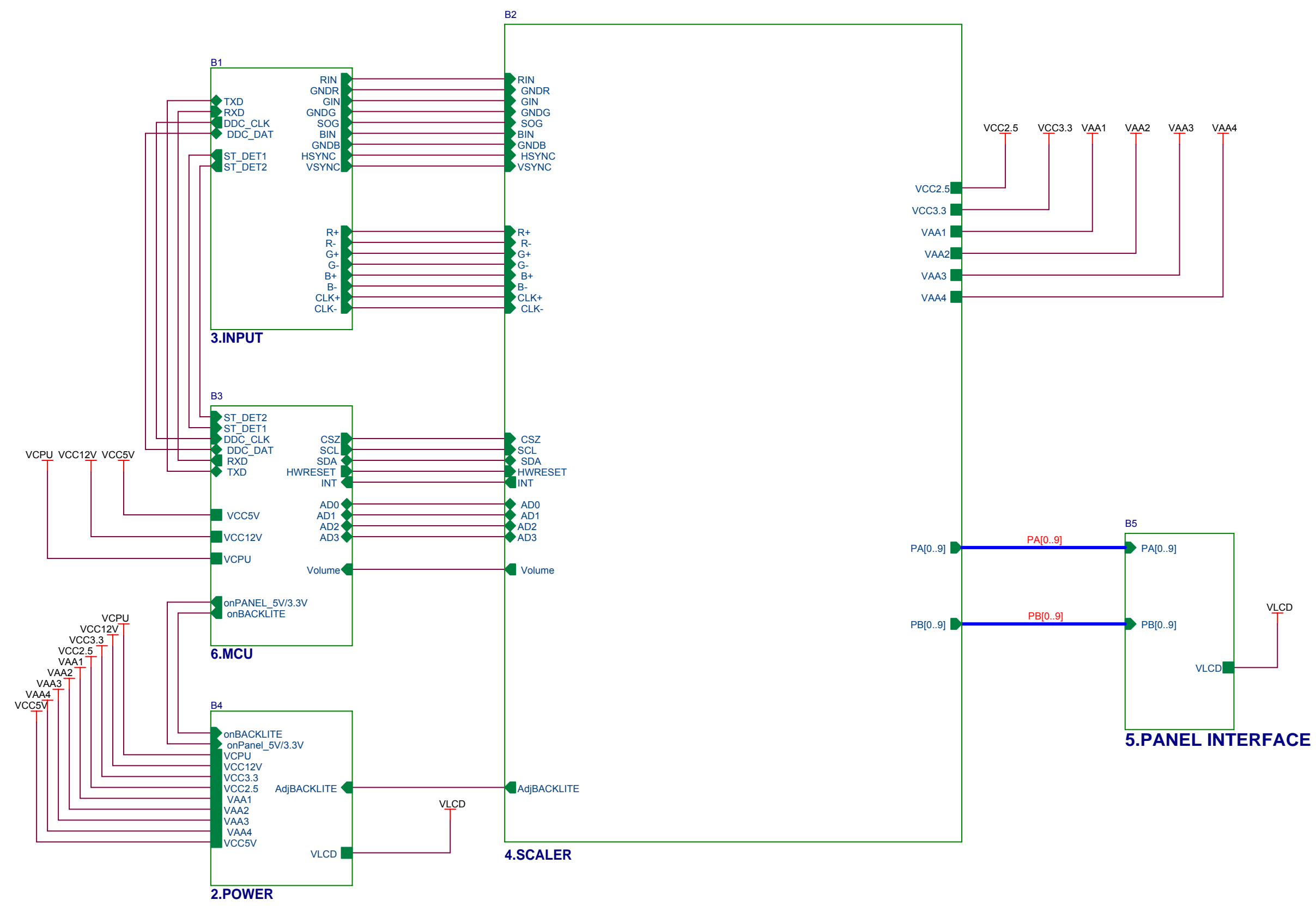
6. Troubleshooting Flow Chart



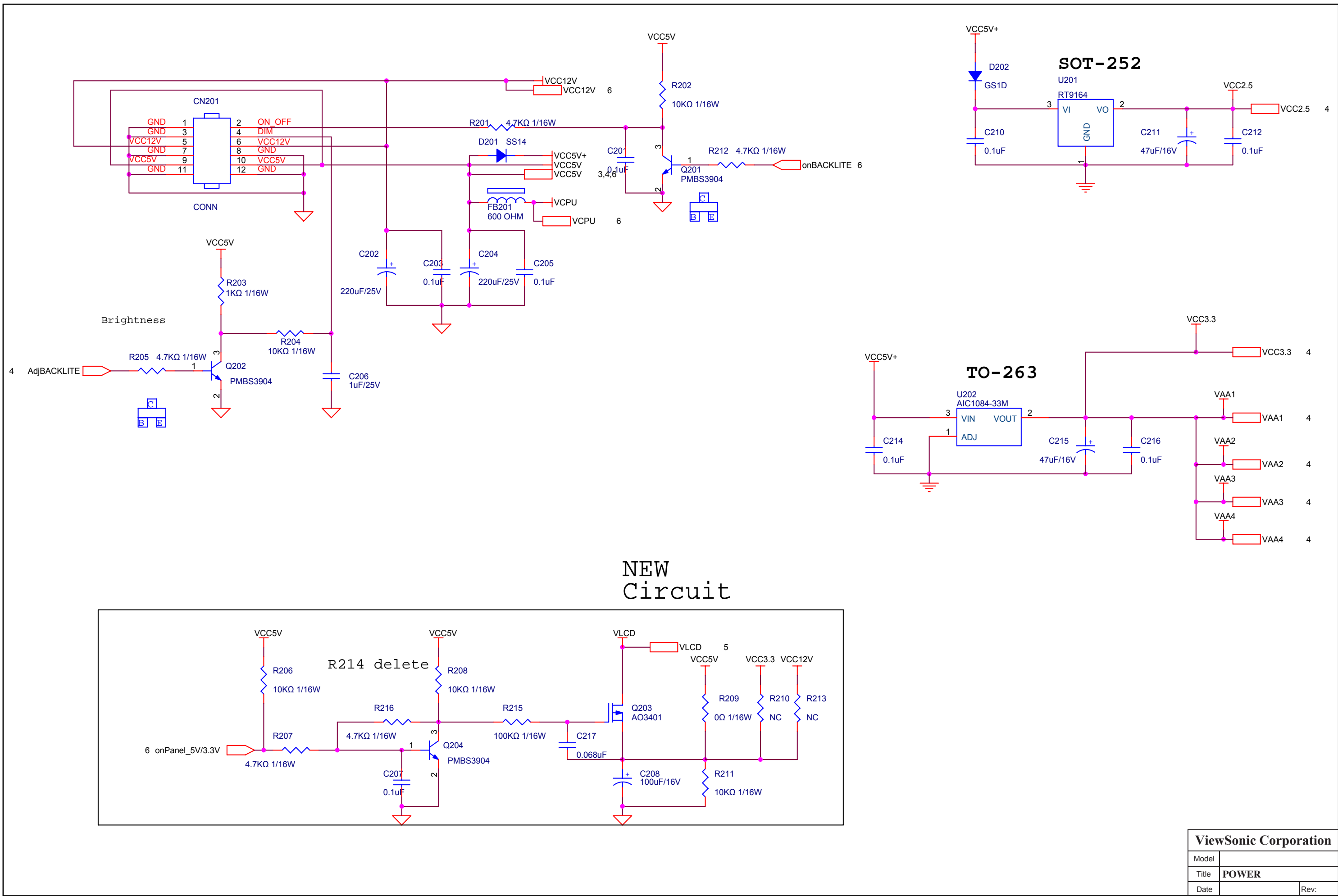
7. Block Diagram



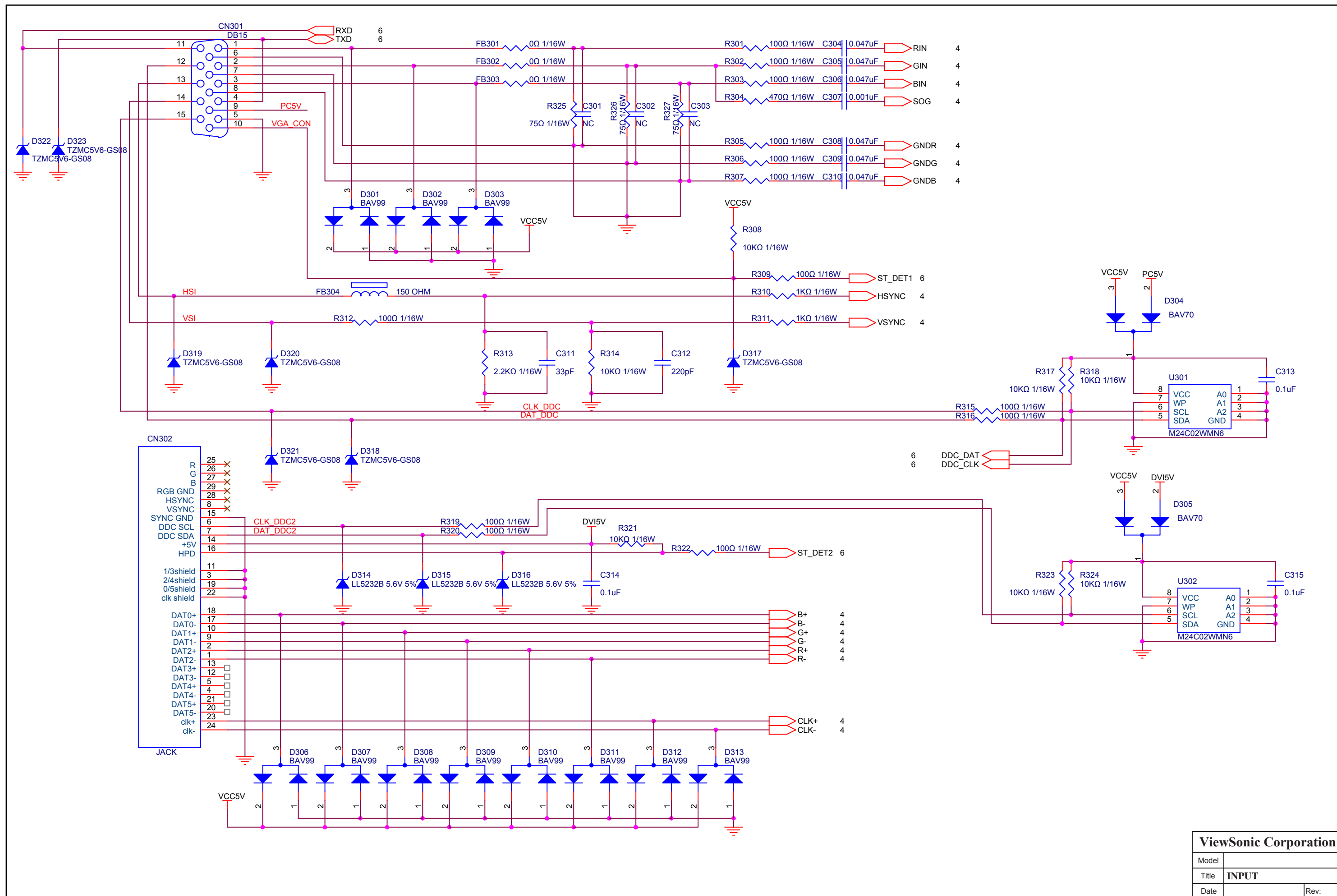
TSU16AK SCHEMATIC



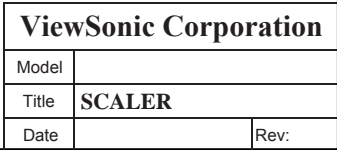
ViewSonic Corporation		
Model		
Title	MAIN BOARD	
Date		Rev:

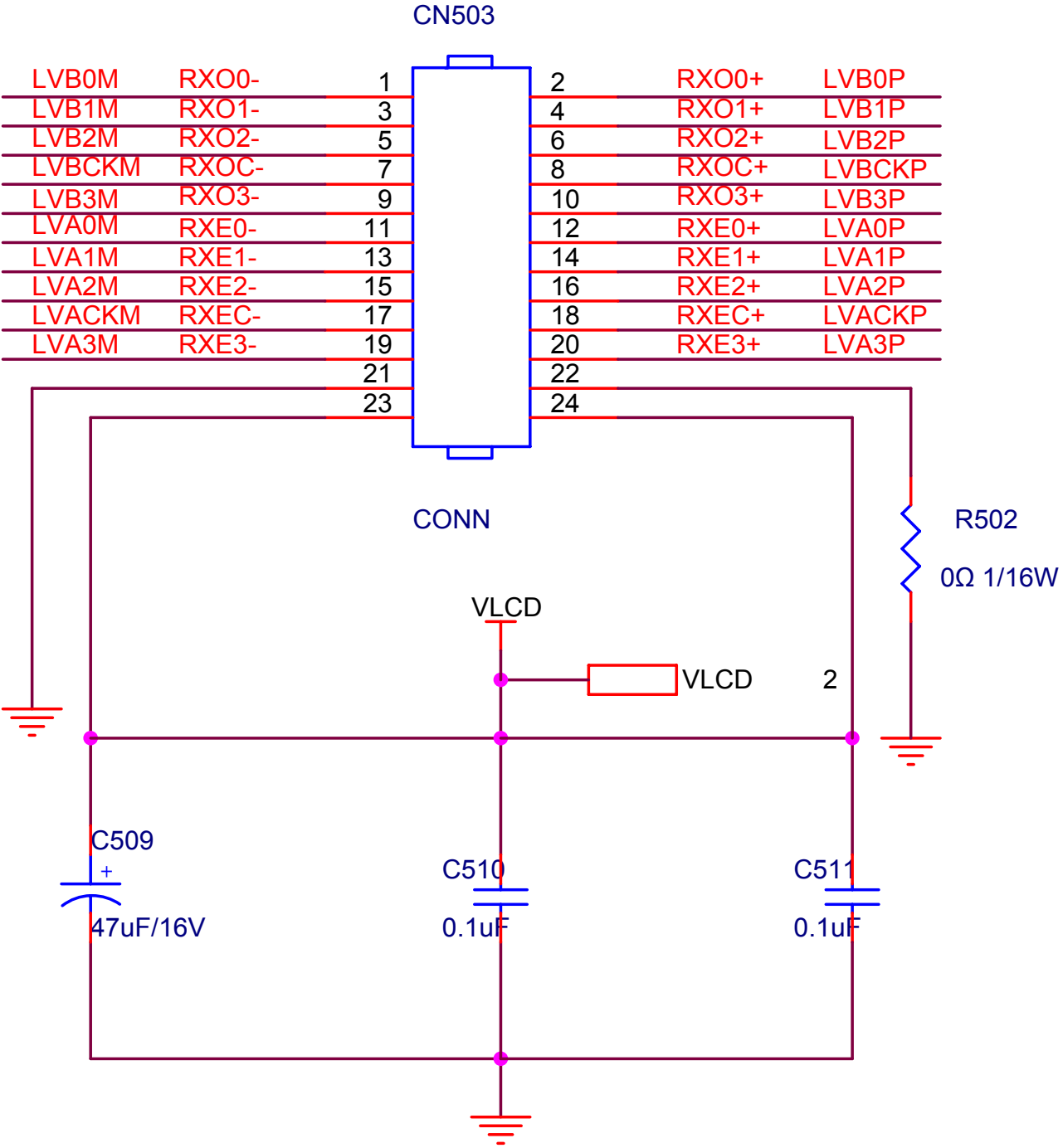
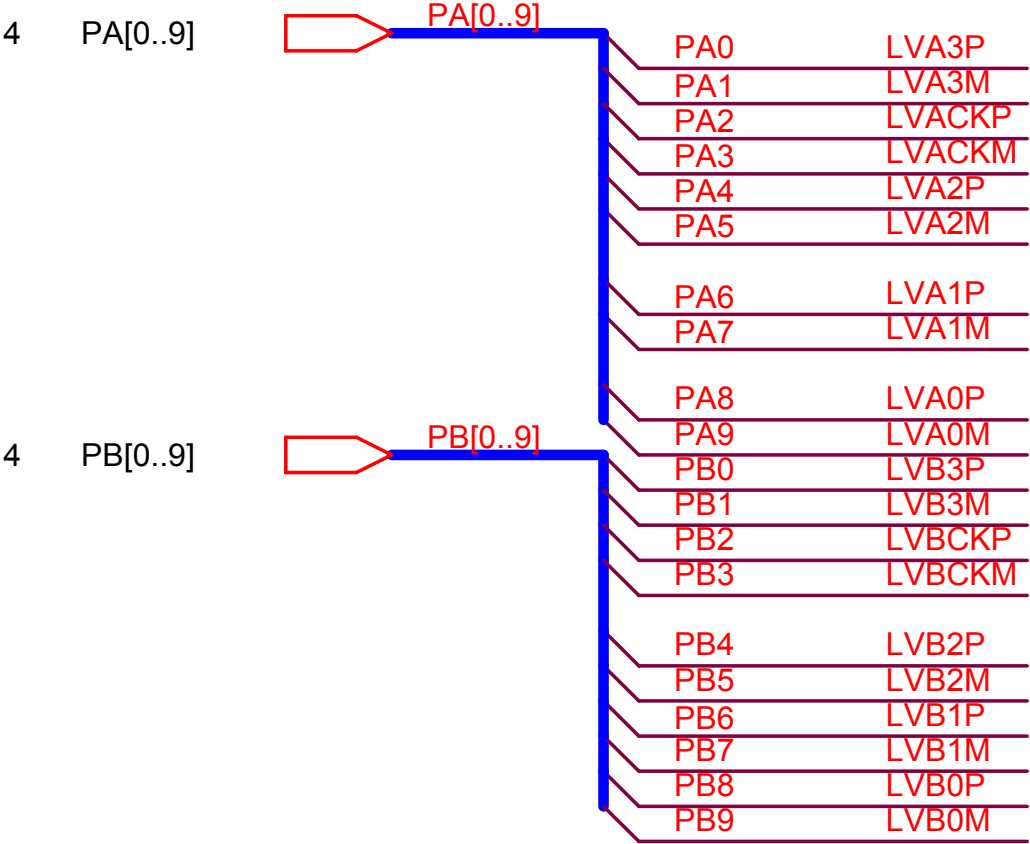


ViewSonic Corporation		
Model		
Title	POWER	
Date		Rev:

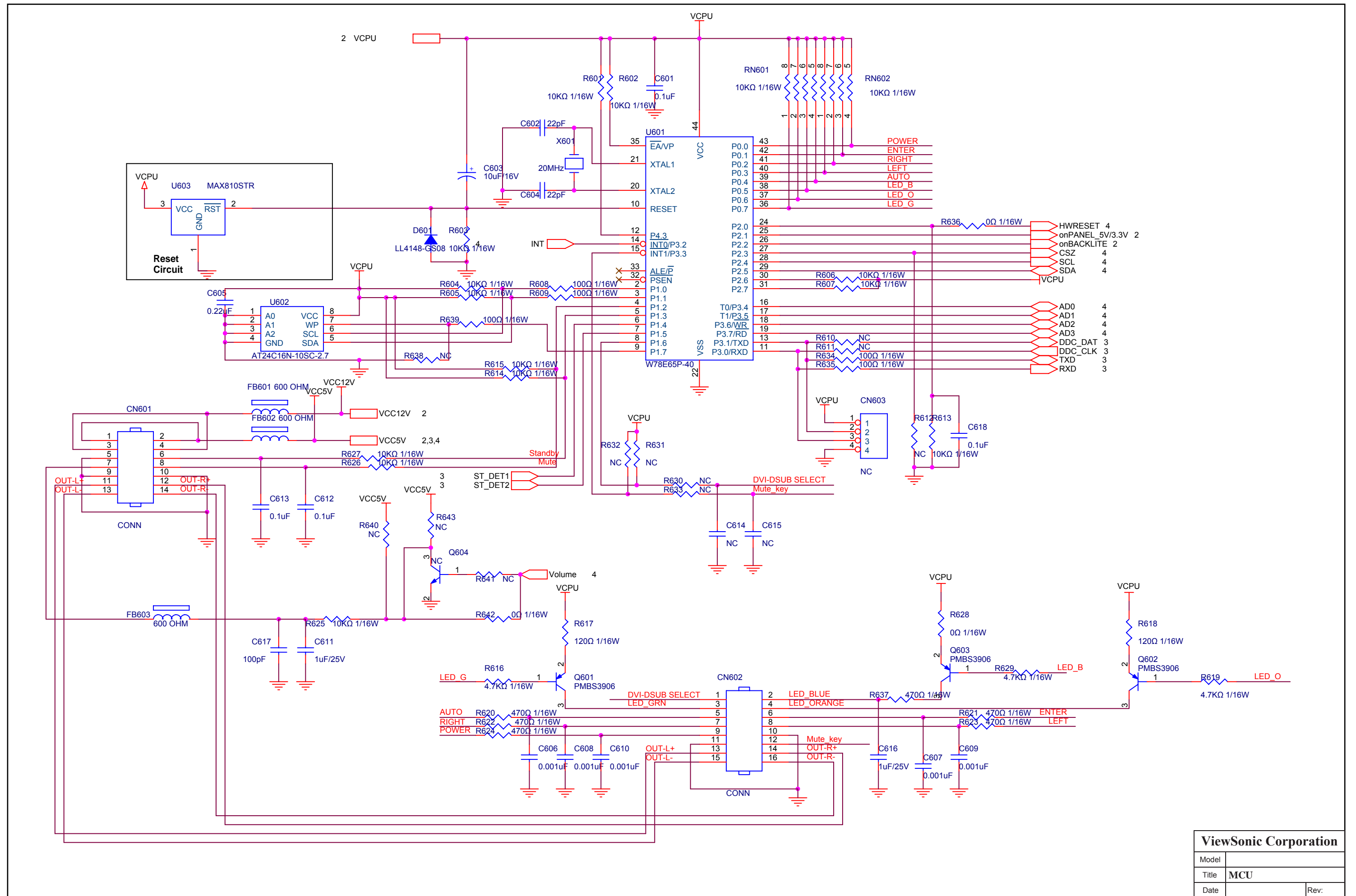


ViewSonic Corporation		
Model		
Title	INPUT	
Date		Rev:

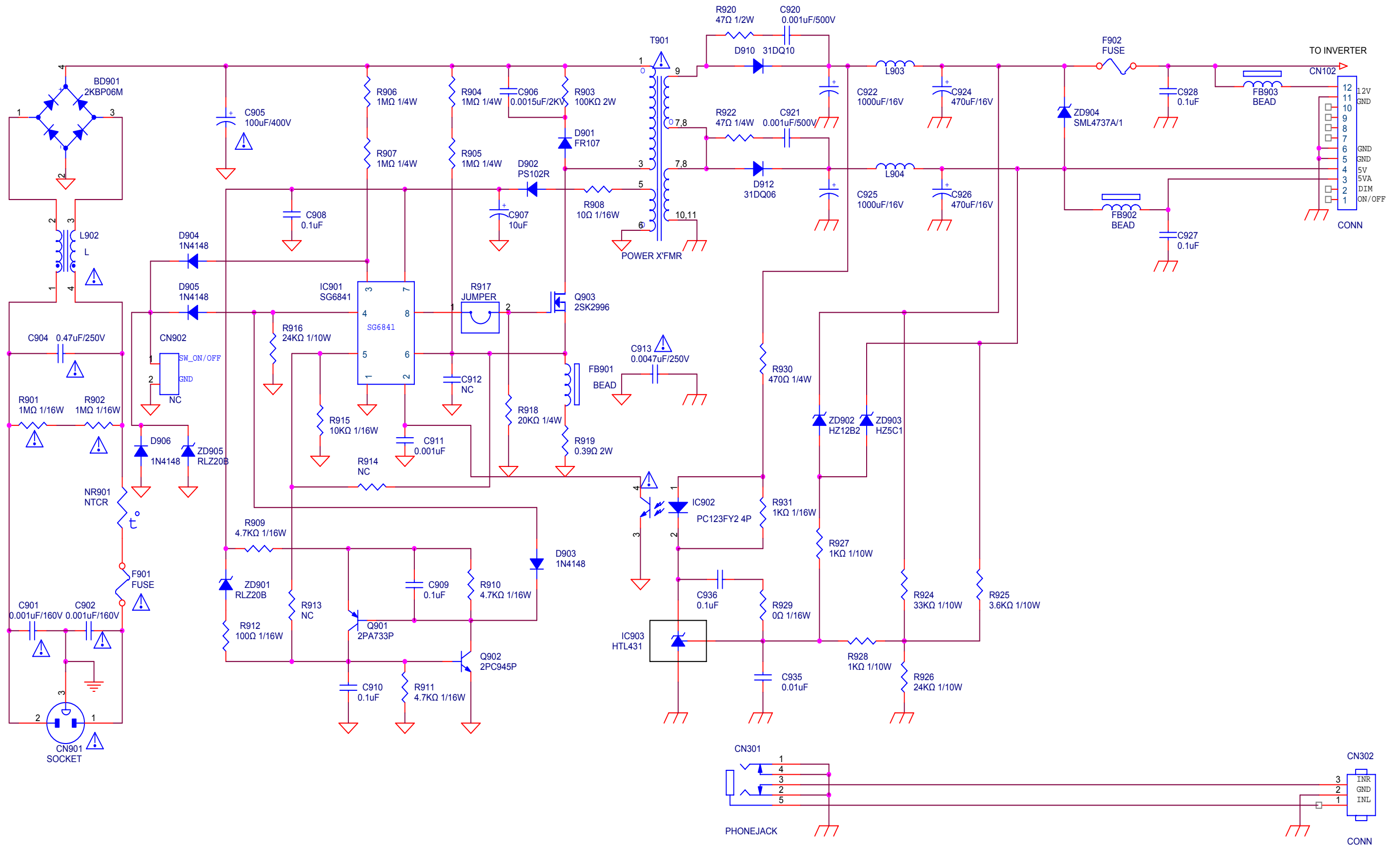




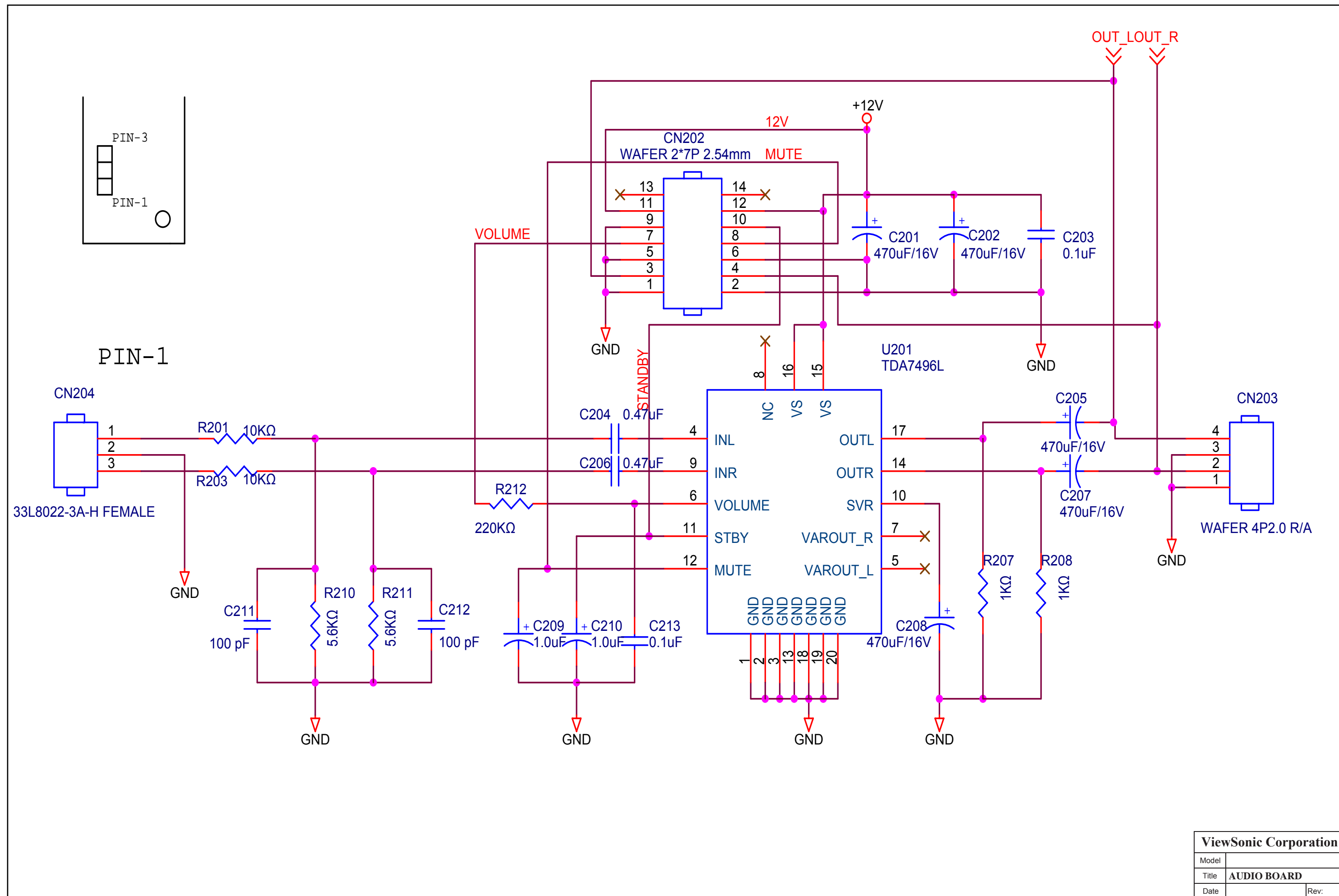
ViewSonic Corporation			
Model			
Title	PANEL INTERFACE		
Date		Rev:	

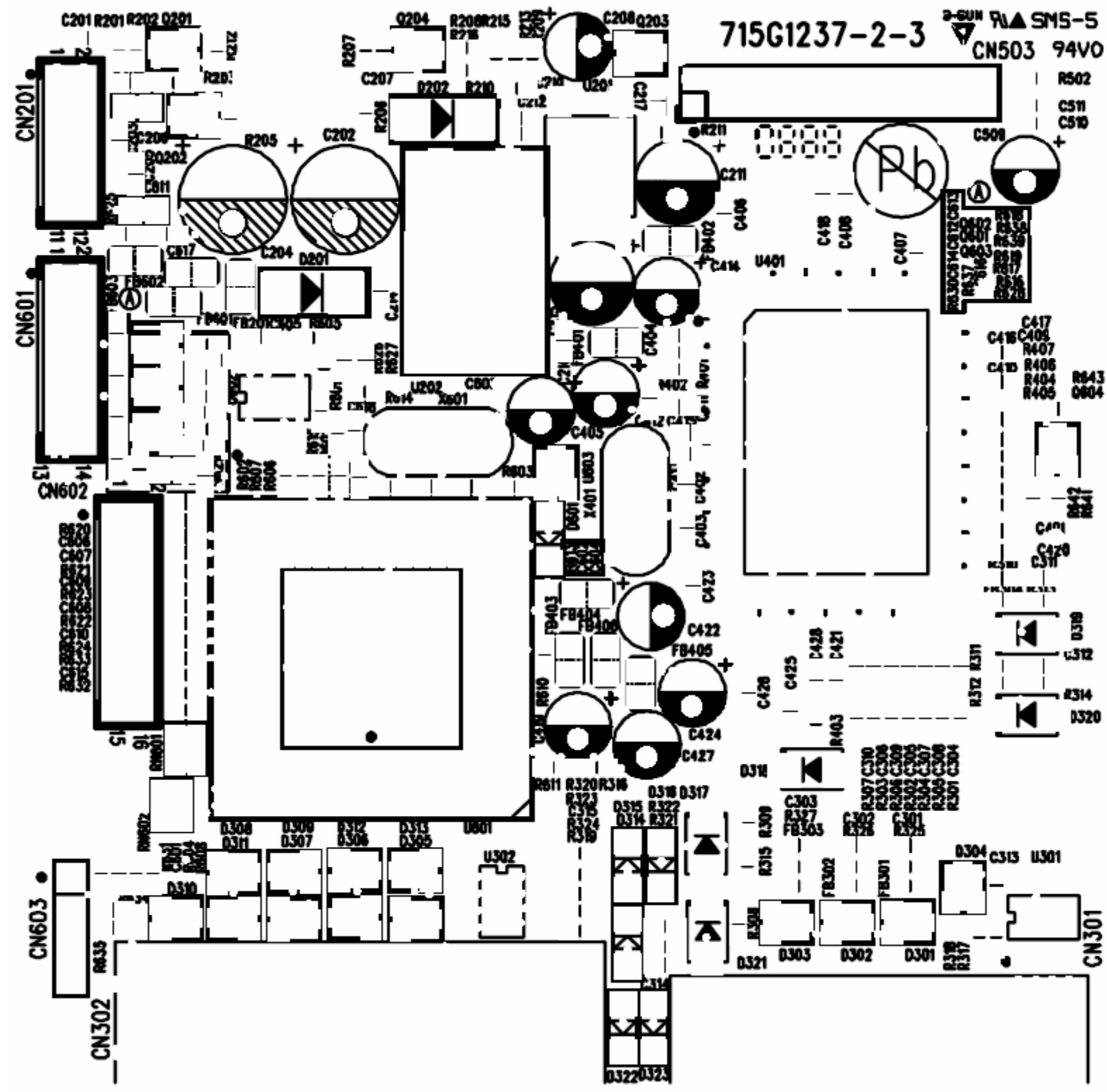


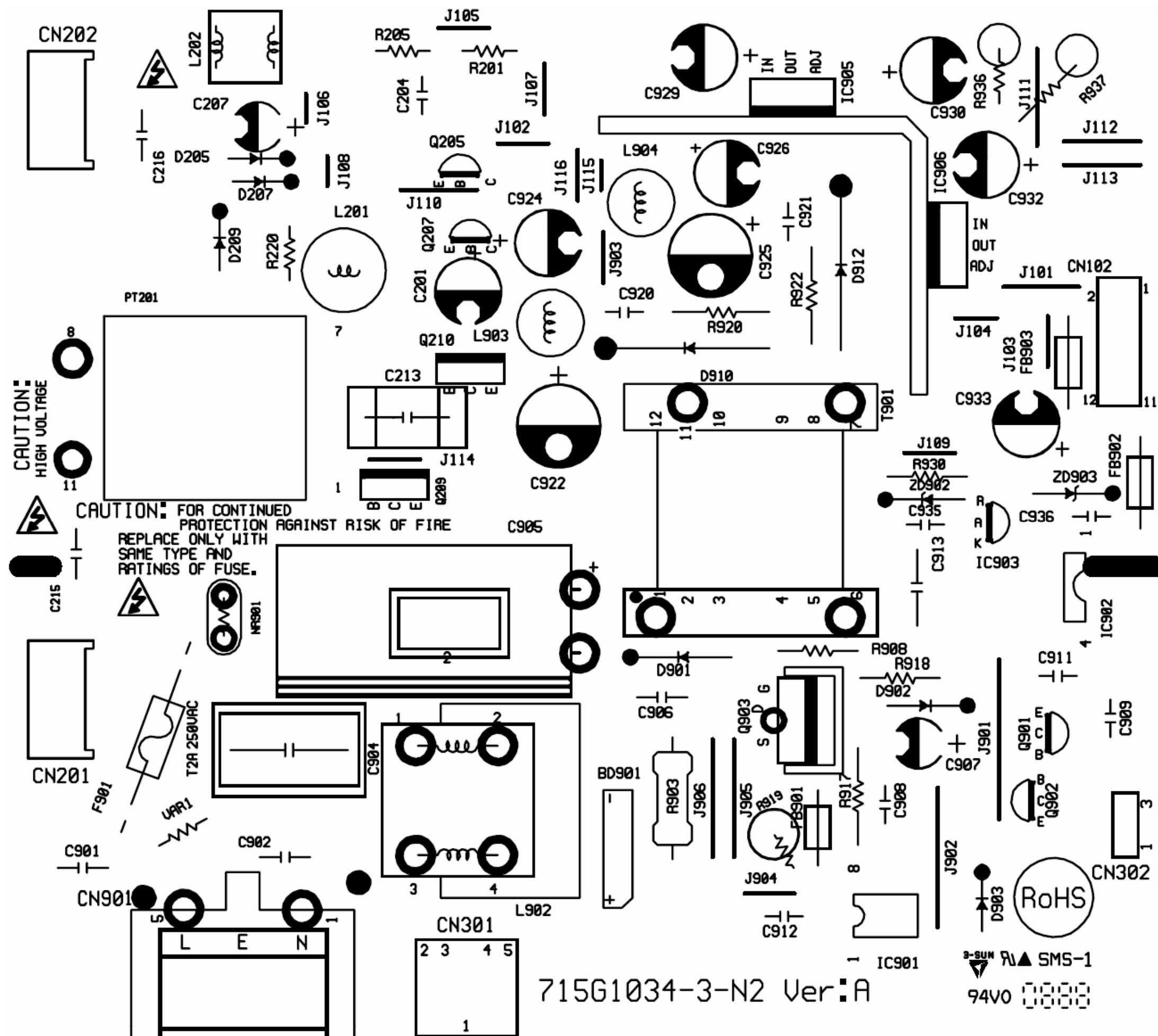
ViewSonic Corporation			
Model			
Title	MCU		
Date		Rev:	

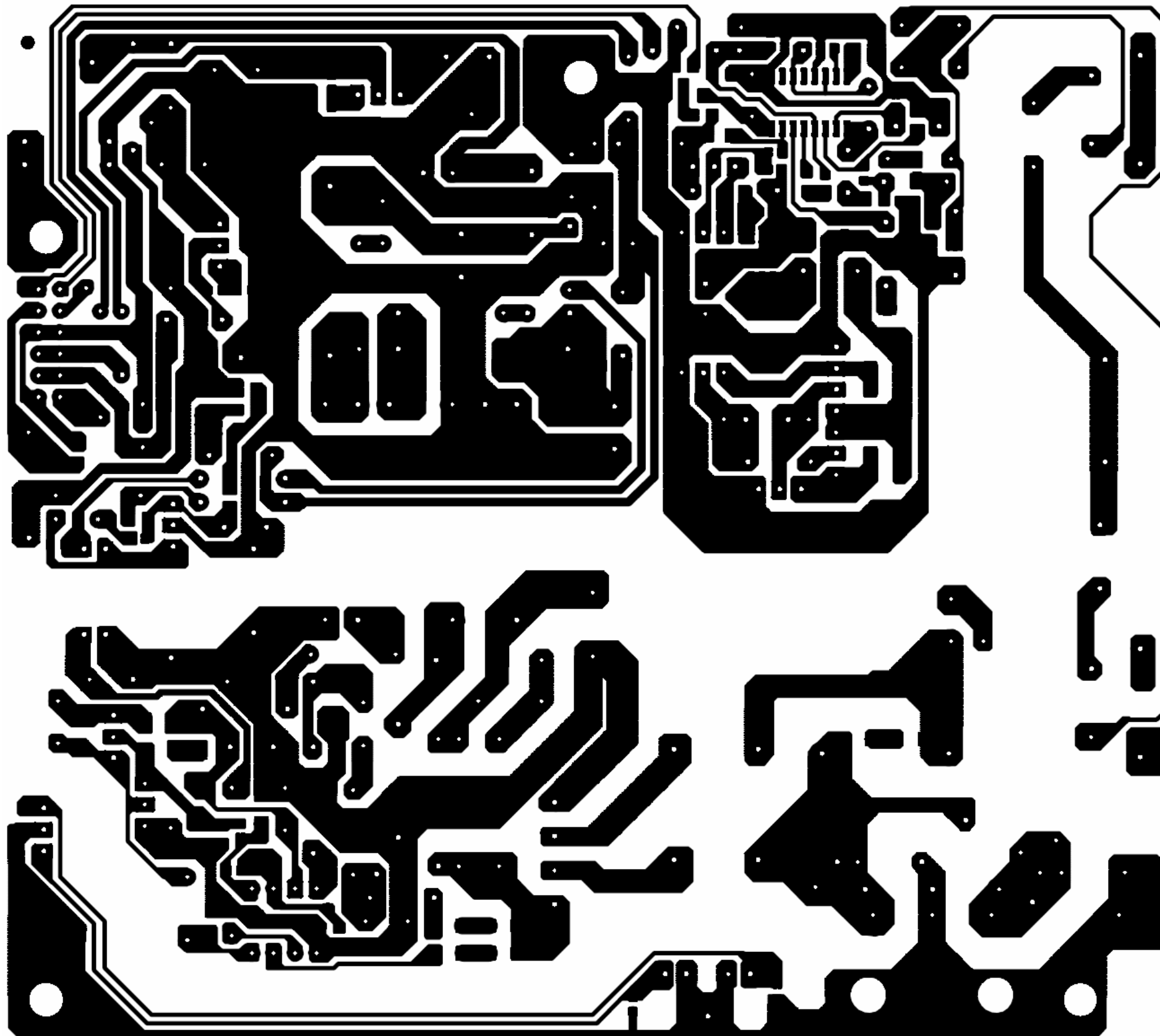


ViewSonic Corporation			
Model			
Title	POWER		
Date		Rev:	

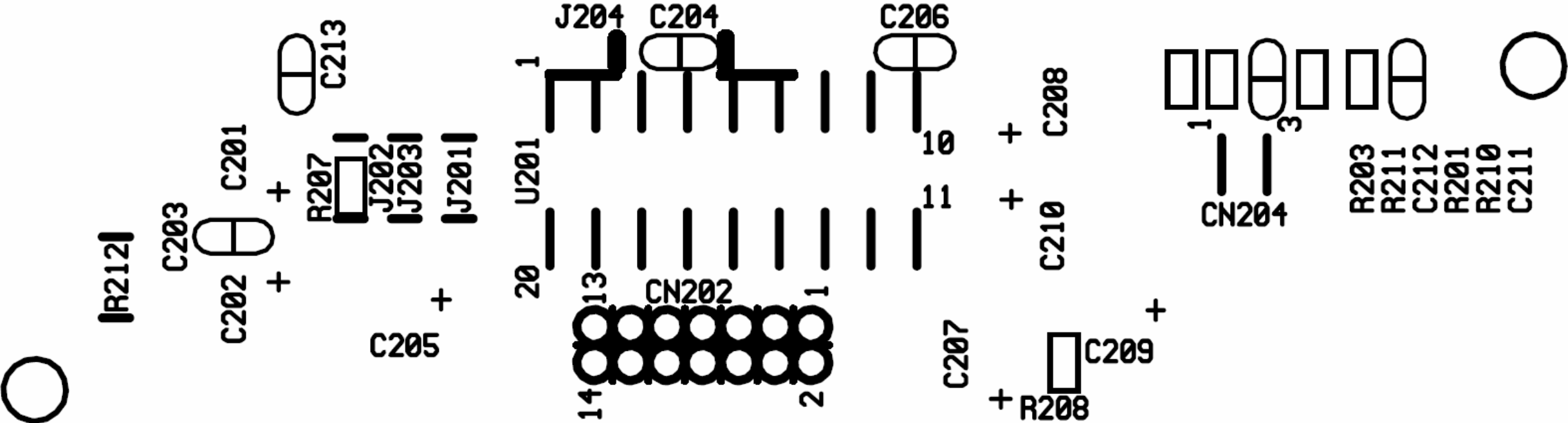




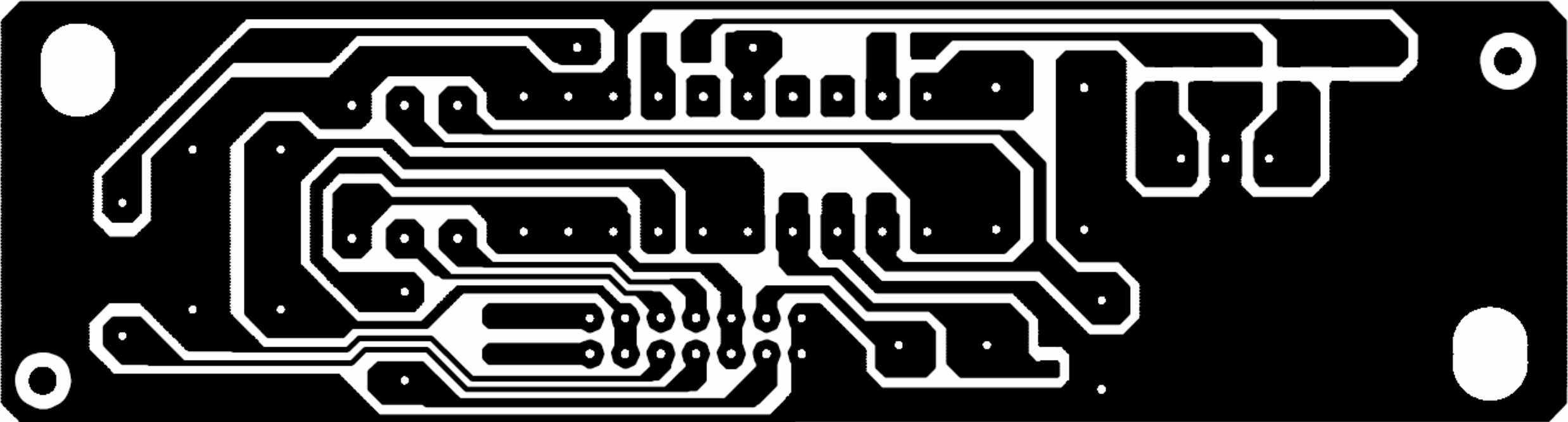




715G1034-3-N2 Ver:A

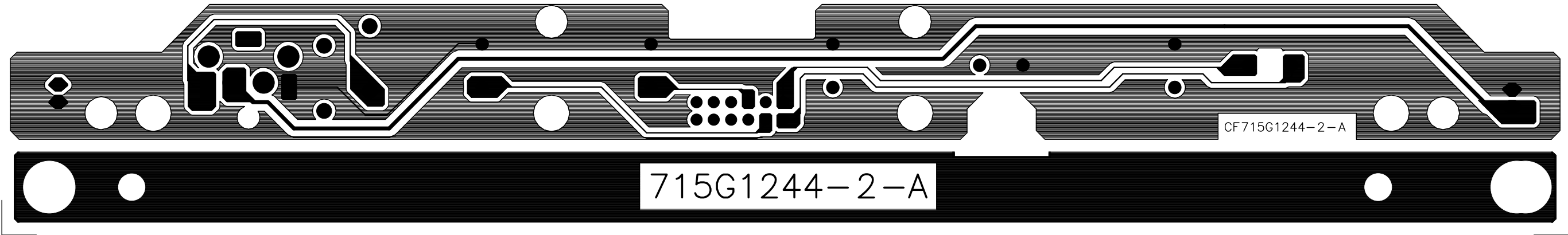
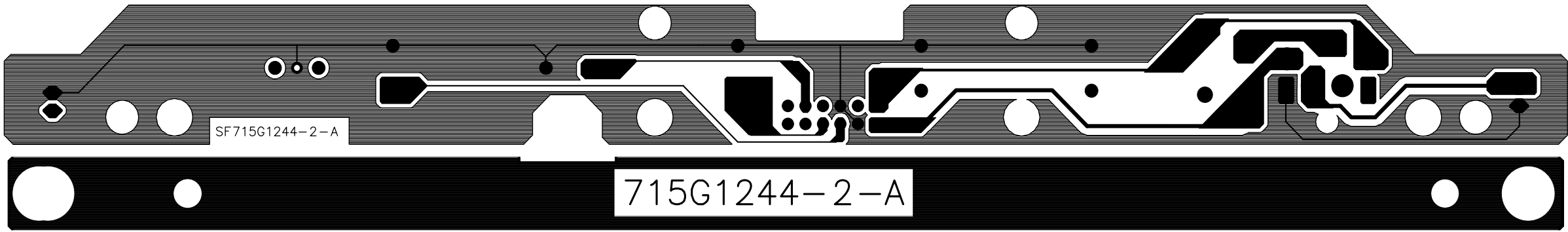
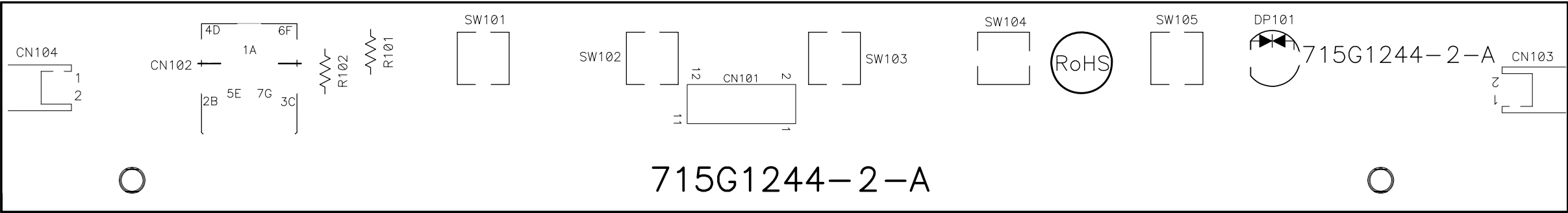


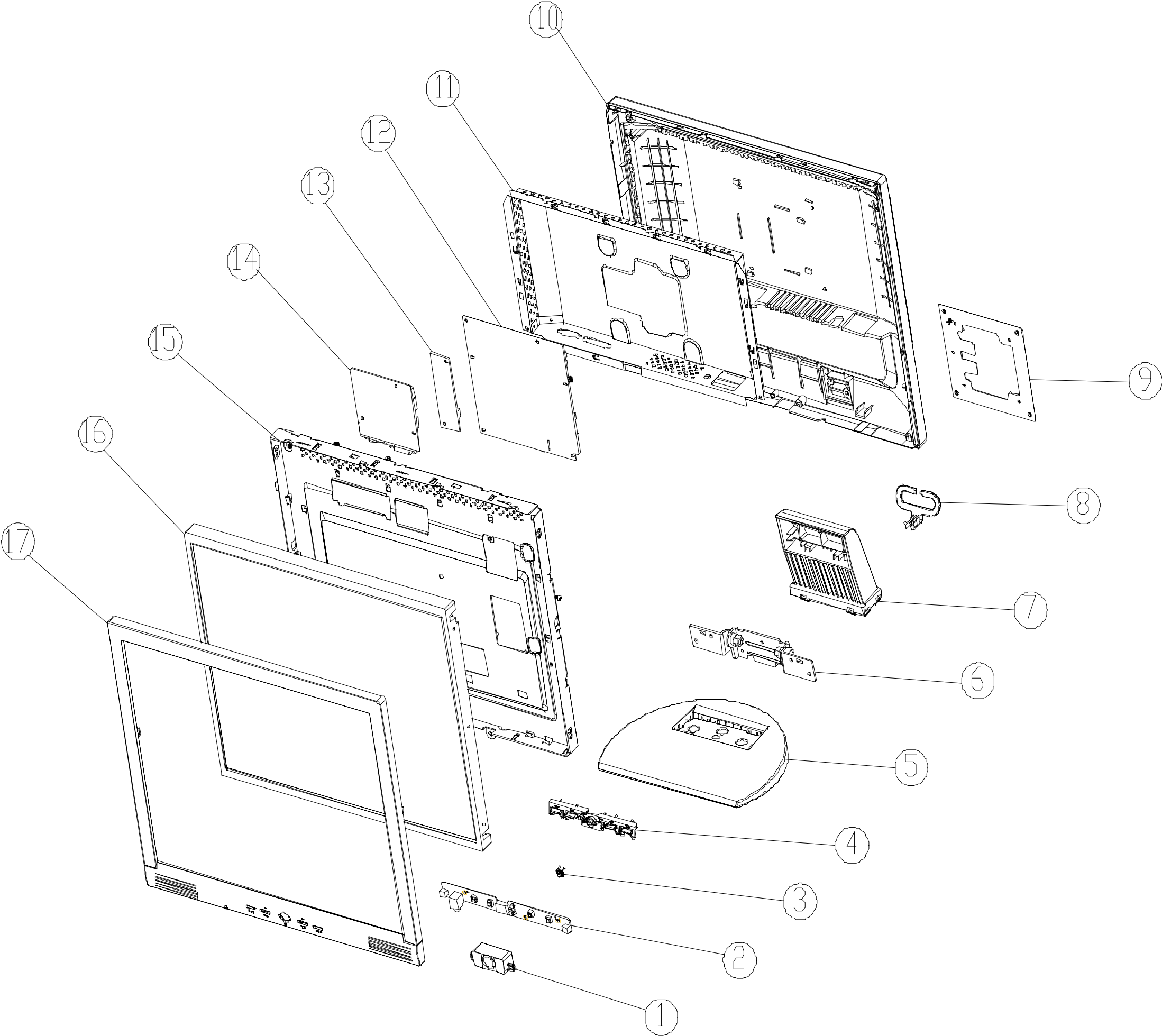
715L1144-1-I0



715L1144-1-I0

KEY BOARD





EXPLODED PARTS LIST (VA502mb-1)

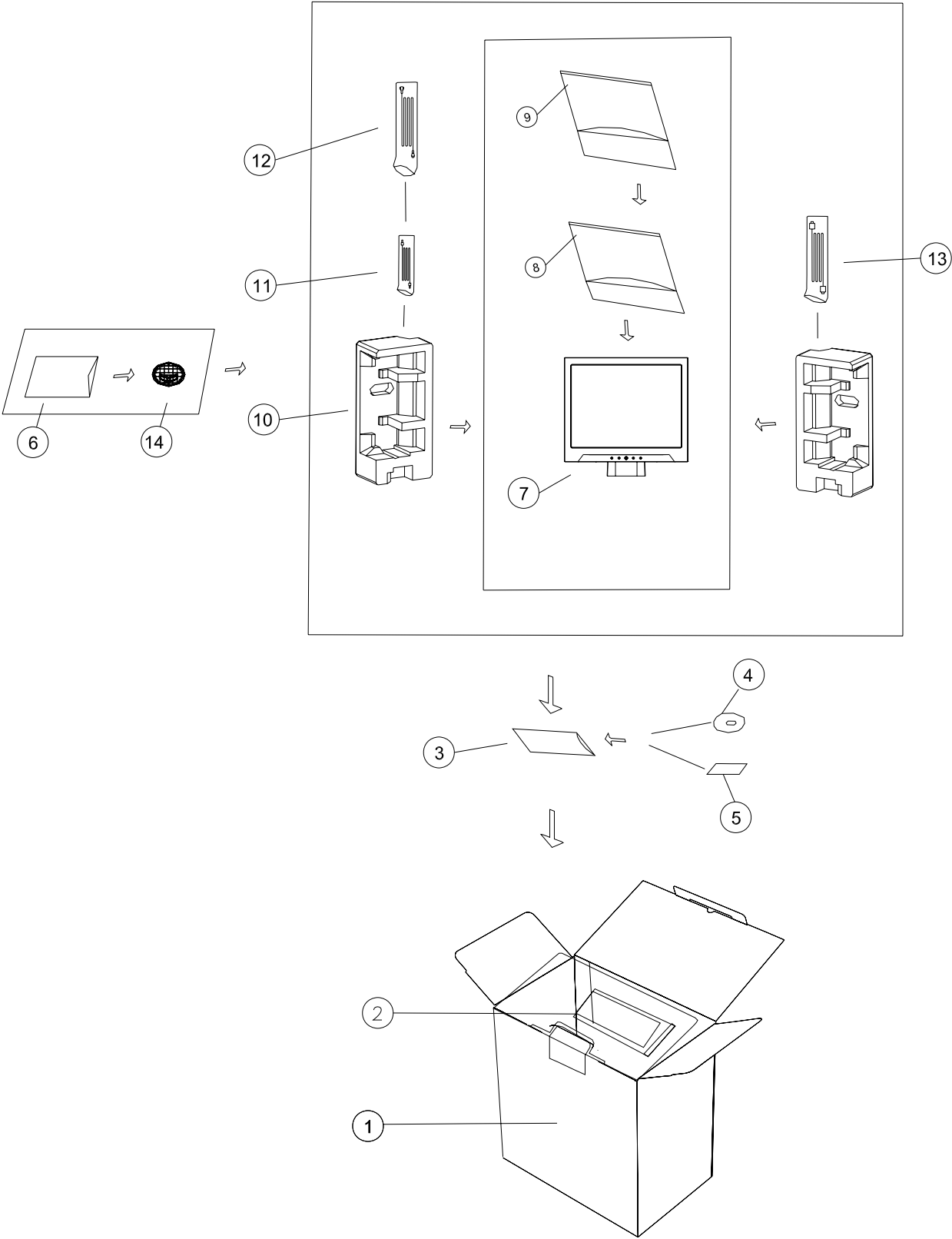
ViewSonic Model Number: VS11352

Rev: 1a

Serial No. Prefix: QA8

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	N/A	78G314-2-G	Speaker	2
2	B-00008246	KEPC560KE3O9P	Key pad	1
3	N/A	81G12-2-GP	LED	1
4	N/A	Q33G4713-E7-1L	KEY PAD	1
5	N/A	Q34G1274-E7-1L	BASE	1
6	N/A	37G495-1	HINGE	1
7	N/A	Q34G1273-E7-1L	STAND	1
8	N/A	33G4695-1-C	CLAMP	1
9	N/A	15G5791-1	Vesa BKT	1
10	N/A	Q34G1298-E7-2L	Rear cover	1
11	N/A	85G654-3	Main shield	1
12	B-00008247	PKCC1521SVE1P	Power board	1
13	B-00008244	AUPC560KBO9P	Audio Board	1
14	B-00008245	CBPC560KV8V29P	Main board	1
15	N/A	15G5935-25-CKD	Main Frame	1
16	N/A	750GLD50-4TB-31	Panel	1
17	N/A	Q34G1295-E7-A3L	Bezel	1

Packing for Shipping



PACKING PART LIST (VA502mb-1)

ViewSonic Model Number: VS11352

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	N/A	44B352-6	Carton	1
2	N/A	Q50G600-2/3	HANDLE 1/2	1
3	N/A	Q45G76-28-CK2	PE BAG	1
4	N/A	Q70G1500-709-1B	CD manual	1
5	N/A	Q41G7800-709-19A	QSG	1
6	N/A	Q45G88-609	EPE cover	1
7	N/A	VA502mb	Monitor	1
8	N/A	45G88-609	EPE cover	1
9	N/A	Q45G88-607-CK2	PE BAG	1
10	N/A	45B3553-1/2	EPS	1
11	N/A	89G173-56-4B	AUDIO CABLE	1
12	N/A	89G402A-15N-IS1	POWER CABLE	1
13	N/A	89G715-CAA-D	SIGNAL CABLE	1
14	N/A	N/A	DVI CABLE	0

11. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VA502MB-1)

ViewSonic Model Number: VS11352

Serial No. Prefix: QA8

Rev: 1a

Item	Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#
1	Accessories:		A-00008091	89G402A15NIS1		
2	PC Board		B-00008244	AUPC560KBO9P		
3	Assembly:		B-00008245	CBPC560KV8V29P		
4			B-00008246	KEPC560KE3O9P		
5			B-00008247	PKCC1521SVE1P		
6	Cabinets:		C-00008252	Q34G1295 E7A3L		
7			C-00008253	Q34G1298 E7 2L		
8	Cables:		CB-00008105	89G 173 56 4B		
9			CB-00008106	89G 715LAA D		
10			CB-00008107	95G8014 16618		
11			CB-00008108	95G8018 14507		
12	Documentation:		DC-00008209	Q41G780070919A		
13			DC-00008210	Q70G1500709 1A		
14			DC-00008211	40G 581709 1A		
15			DC-00008212	40G 15N709 1A		
16	Electronic		E-00005651	56G 563 7	U202	
17	Components:		E-00008115	56G 616 1	U201	
18			E-00008254	56G 562 57	U401	
19			E-00008255	56G1125137ET2	U601	
20			E-00008256	56G1133 20	U301	
21			E-00008257	56G1133516	U602	
22			E-00008258	750GLD504TB 31		
23	Hardware:		HW-00003747	M1G1730 6128		
24			HW-00003750	Q1G 330 6120		
25			HW-00004993	Q1G1030 8128		
26			HW-00008073	37G 495 1		
27			HW-00008074	M1G 330 4128		
28			HW-00008075	M1G 330 6 47		
29			HW-00008076	M1G1140 5128		
30			HW-00008077	AM1G1740 10 47		
31			HW-00008078	Q1G 330 10 47		
32			HW-00008079	Q1G1030 10128		
33	Packing Material:		P-00005645	45G 88609		
34			P-00008249	44B3524 1		
35			P-00008250	44B3524 2		
36			P-00008251	45G 76 28CK2		
37			P-00008252	45G 88607CK2		
38	Plastics:		PL-00008084	Q34G1274 E7 1L 20		

Remark 1: Above listed items are examples, supplier can expand the rows to add more necessary items.

Remark 2: All revised RSPLs with newly added items or any change made should be highlighted and correlated with the ECN/ECR approved by ViewSonic Corporation. This is to eliminate repeated cross checks of each item between this version and prior versions.

BOM LIST (VA502mb-1)

ViewSonic Model Number: VS1135

Rev: 1a

Serial No. Prefix: QA8

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	B-00008245	CBPC560KV8V29P	CONVERSION BOARD			1
2	B-00008246	KEPC560KE3O9P	KEY BOARD			1
3	B-00008247	PKCC1521SVE1P	POWER BOARD			1
4	B-00008244	AUPC560KBO9P	AUDIO BOARD			1
5	N/A	007G 5 7110	COMPOUND PALLET			0.01
6	N/A	015G5791 1	VESA BKT			1
7	N/A	015G5908 2	BRACKET			1
8	N/A	015G5935 25CKD	MAIN FRAME			1
9	N/A	023G3178709 3A	LOGO			1
10	N/A	033G4714 1 C	POWER LENS			1
11	N/A	040G 154501 1	HI-POT GND LABEL			1.1
12	N/A	040G 581 26646	EANCODE LABEL			0.5
13	N/A	040G 581625 2A	PALLET LABEL			0.05
14	N/A	040G 581709 1A	CARTON LABEL			1
15	N/A	040G 58170918D	PALLET LABEL			0.05
16	N/A	044G3231 15528	EVA WASHER			1
17	N/A	044G3553 1	EPS(L)	M044A		1
18	N/A	044G3553 2	EPS(R)	M044B		1
19	N/A	044G6000 4E	CARTON			0.035
20	N/A	045G 76 28CK2	PE BAG			1
21	N/A	045G 77 3	PE BAG			173
22	N/A	045G 77500	BARCODE RIBBON			22
23	N/A	045G 77501	BARCODE RIBBON			1.8
24	N/A	045G 88607CK2	PE BAG			1
25	N/A	045G 88609	EPE COVER			1
26	N/A	052G 1150 C	WHITE TAPE			20
27	N/A	052G 1174 2A	3M 69#			31
28	N/A	052G 1185	MIDDLE TAPE FOR CARTON			65
29	N/A	052G 1185 1	BIG TAPE			160
30	N/A	052G 1186	SMALL TAPE			20
31	N/A	052G 1191	GLASS CLOTH			450
32	N/A	052G 1192	GLASS CLOTH			450
33	N/A	052G 1211 A	165MINIUM TAPE			1
34	N/A	052G 4 1	SMALL TAPE			0.95
35	N/A	052G6020 2	PROTECT FILM			0.1
36	N/A	078G 314 2	4028 SPEAKER 8OHM 1W			2
37	N/A	078G 314 2 G	SPEAKER			1
38	N/A	085G 654 3	SHIELD			1
39	N/A	089G 173 56 4B	AUDIO CABLE			1
40	N/A	089G 715CAA D	SIGNAL CABLE	PE089B1		1
41	N/A	089G 715LAA D	SIGNAL CABLE	PE089B1		1
42	N/A	089G402A15NIS1	POWER CORD	E089A		1
43	N/A	095G8014 16584	WIRE HARNESS			1
44	N/A	095G8018 14507	HARNESS			1
45	N/A	0M1G 330 4128 CR3	SCREW			4
46	N/A	0M1G 330 4128 CR3	SCREW			1
47	N/A	0M1G 330 6 47 CR3	SCREW			4
48	N/A	0M1G1140 5128 CR3	SCREW			1
49	N/A	0M1G1730 6128 CR3	SCREW			9
50	N/A	0Q1G 330 6120	SCREW			4
51	N/A	0Q1G 330 10 47 CR3	SCREW			1
52	N/A	705LQ5K0P34001	15" LCD STAND ASS'Y			1
53	E-00008258	750GLD504TB 31	SVA 15" PANEL	E750L		1
54	N/A	AM1G1740 10 47 CR3	SCREW			4
55	N/A	Q33G4713 E7 1L	KEY PAD			1
56	PL-00008084	Q34G1274 E7 1L 20	BASE			1
57	C-00008252	Q34G1295 E7A3L	BEZEL			1
58	C-00008253	Q34G1298 E7 2L	REAR COVER			1
59	N/A	Q40G 15N709 1C	RATING LABEL			1
60	DC-00008209	Q41G780070919A	QSG			1
61	N/A	Q45G 76 28A07	PE BAG			1
62	N/A	Q70G1500709 1B	cd manual			1
63	N/A	705LQ5K0P34001	15" LCD STAND ASS'Y			0
64	N/A	012G 394 1	FOOT PORON			6
65	N/A	033G4695 1 C	CLAMP			1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
66	N/A	037G 495 1	HINGE ASS'Y			1
67	N/A	0Q1G1030 8128 CR3	SCREW			1
68	N/A	0Q1G1030 10128 CR3	SCREW			2
69	N/A	Q34G1273 E7 1L	STAND			1
70	B-00008244	AUPC560KBO9P	AUDIO BOARD			0
71	N/A	033G802414C H	2*7PIN DUAL ROW RIGHT ANGLE H	CN202		1
72	N/A	056G 616 1	TDA7496	U201		1
73	N/A	090G6059 1	HEAT SINK			1
74	N/A	095G8014 3503	WIRE HARNESS	CN204		1
75	N/A	AU560KBO9SMTP	AUDIO BOARD FOR SMT			1
76	N/A	033G801714A H	PIN HEADER 2*7 R/A	CN601		1
77	N/A	033G8027 12	WAFER 2*6P 2.0MM R/A	CN201		1
78	N/A	033G8027 14 H	WAFER 14P 2.0MM DIP	CN503		1
79	N/A	033G8027 16	WAFER 16PIN 2.0mm DIP	CN602		1
80	N/A	040G 45762412B	CBPC LABEL			1
81	N/A	067G215B221 4H	LOW E.S.R 220UF +-20% 25V	C204		1
82	N/A	067G215B221 4H	LOW E.S.R 220UF +-20% 25V	C202		1
83	N/A	067G305V100 3	105C 10UF +-20% 16V	C509		1
84	N/A	067G305V100 3	105C 10UF +-20% 16V	C427		1
85	N/A	067G305V100 3	105C 10UF +-20% 16V	C424		1
86	N/A	067G305V100 3	105C 10UF +-20% 16V	C422		1
87	N/A	067G305V100 3	105C 10UF +-20% 16V	C419		1
88	N/A	067G305V100 3	105C 10UF +-20% 16V	C414		1
89	N/A	067G305V100 3	105C 10UF +-20% 16V	C405		1
90	N/A	067G305V100 3	105C 10UF +-20% 16V	C208		1
91	N/A	067G305V470 3	105C 47UF +-20% 16V	C215		1
92	N/A	067G305V470 3	105C 47UF +-20% 16V	C211		1
93	N/A	088G 35315F HS	D-SUB 15P	CN301		1
94	N/A	088G 35315FHSJ	D-SUB 15PIN CONNECTOR	CN301		1
95	N/A	093G 22 53	CRYSTAL 14.318MHzHC-49US	X401		1
96	N/A	093G 22 53 J	14.31818MHZ/32PF/49US	X401		1
97	N/A	093G 22 55	CRYSTAL 20MHZ HC-49US	X601		1
98	N/A	093G 22 55 J	20MHz/20PF/49US	X601		1
99	N/A	AIC560KV8V29P	MAIN BOARD FOR AI			1
100	B-00008246	KEPC560KE3O9P	KEY BOARD			0
101	N/A	033G3802 2H	WAFER 2P RIGHT ANGLE	CN103		1
102	N/A	033G3802 2H	WAFER 2P RIGHT ANGLE	CN104		1
103	N/A	033G801712A H	PIN HEADER 2*6 R/A	CN101		1
104	N/A	077G 603 2 CJ	TACT SWITCH	SW105		1
105	N/A	077G 603 2 CJ	TACT SWITCH	SW103		1
106	N/A	077G 603 2 CJ	TACT SWITCH	SW102		1
107	N/A	077G 603 2 CJ	TACT SWITCH	SW101		1
108	N/A	077G 603 2 CJ	TACT SWITCH	SW104		1
109	N/A	081G 12 2 GP	GP36032ME/50-ZO	DP101		1
110	N/A	088G 30211K	PHONE JACK 5PIN	CN102		1
111	N/A	AIK560KE39P	KEY BOARD FOR AI			1
112	B-00008247	PKCC1521SVE1P	POWER BOARD			0
113	N/A	033G3278 3	3P PLUG B3B-XHA/JST	CN302		1
114	N/A	033G8020 2D U	WAFER	CN202		1
115	N/A	033G8020 2D U	WAFER	CN201		1
116	N/A	040G 45762412B	CBPC LABEL			1.03
117	N/A	051G 6 4500	RTV胶	P051		2
118	N/A	051G 6 4502	RTV胶	P051		1
119	N/A	051G 6 4503	RTV胶	P051		1
120	N/A	056G 139 3	PC123FY2 BY SHARP	IC902		1
121	N/A	056G 139 3A	PC123Y22FZOF	IC902		0
122	N/A	056G 139 3B	PC123 Y82FZ0F	IC902		0
123	N/A	056G 379 77	IC LD7552BPN DIP-8	IC901		1
124	N/A	057G 723 3B	2SK2761-01MR	Q903		1
125	N/A	057G 724 4	2SK2996	Q903		0
126	N/A	057G 724 4A	STP9NK60ZEP	Q903		0
127	N/A	057G 761 6	2SC5706-P-E	Q210		1
128	N/A	057G 761 6	2SC5706-P-E	Q209		1
129	N/A	061G 58080 WT	8 OHM NCT	NR901		1
130	N/A	061G152M104 64	100KOHM 5% 2W	R903		1
131	N/A	063G 10747410S	塑胶膜电容	C904		1
132	N/A	063G107K474 US	0.47UF +-10%	C904		0
133	N/A	063G210J2242AC	FILM CAP 0.22UF J 250V	C213		1
134	N/A	065G 2K152 5E6052	1500 PF 10% 2KV Y5P	C906		1
135	N/A	065G 2K152 5E6285	1500 PF 10% 2KV Y5P	C906		0

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
136	N/A	065G 2K152 5E6921	1500 PF 10% 2KV Y5P	C906		0
137	N/A	065G 6J2206E3	R 22PF J 6KV NP0	C215		1
138	N/A	065G 6J2206E3	R 22PF J 6KV NP0	C216		1
139	N/A	065G305M1022BP	Y2 1000PF M 250VAC Y5P	C901		1
140	N/A	065G305M1022BP	Y2 1000PF M 250VAC Y5P	C902		1
141	N/A	065G305M1022E2	1000P 400VAC/250VAC	C901		0
142	N/A	065G305M1022E2	1000P 400VAC/250VAC	C902		0
143	N/A	065G306M4722BM	4700PF +-20% 400VAC	C913		1
144	N/A	065G306M4722BP	4700PF +-20% 400VAC	C913		0
145	N/A	067G215S10115N	PAG450VB100-M-L18*35.5MM	C905		1
146	N/A	067G215V102 3N GP	KY10VB1000M-CC3 10*16	C925		1
147	N/A	067G215V102 3N GP	KY10VB1000M-CC3 10*16	C922		1
148	N/A	067G215Y4713NV	KY16VB470M-CC3 8*15MM	C926		1
149	N/A	067G215Y4713NV	KY16VB470M-CC3 8*15MM	C924		1
150	N/A	067G215Y4713NV	KY16VB470M-CC3 8*15MM	C201		1
151	N/A	073G 174 30LSA	FILTER	L202		1
152	N/A	073G 174 30YSA	FILTER	L202		0
153	N/A	073G 253 91 H	CHOKE COIL	L903		1
154	N/A	073G 253 91 H	CHOKE COIL	L904		1
155	N/A	073G 253 91 L	CHOKE BY LI TA	L903		0
156	N/A	073G 253 91 L	CHOKE BY LI TA	L904		0
157	N/A	073G 253 91 LS	CHOKE BY LI SHIN	L903		0
158	N/A	073G 253 91 LS	CHOKE BY LI SHIN	L904		0
159	N/A	073G 253139 HA	CHOKE COIL	L201		1
160	N/A	073G 253139 SA	CHOKE COIL	L201		0
161	N/A	073G 253139 YA	CHOKE COIL	L201		0
162	N/A	073G 253139LSA	CHOKE COIL	L201		0
163	N/A	073L 174 26LSG	COMMON CHOKE	L902		0
164	N/A	073L 174 26TIG	LINE LILT 0.45MM	L902		1
165	N/A	080LL15T 7DNG	X'FMR	PT201		1
166	N/A	080LL17T 2 LG	ADAPTOR BY LITAI	T901		1
167	N/A	080LL17T 2 TG	X'FMR	T901		0
168	N/A	080LL17T 2LSG	ADAPTOR BY LISHIN	T901		0
169	N/A	084G 7H200 SL	250V/2A LIHEL FUSE	F901		1
170	N/A	088G 30229C	PHINE JACL	CN301		1
171	N/A	088G 30229T	AUDIO IN JACK	CN301		0
172	N/A	093G 50460 8	BRIDGE 2KBP06M2A600V	BD901		1
173	N/A	093G3006 1	31DQ06FC	D912		1
174	N/A	095G8021 12520	WIRE HARNESS	CN102		1
175	N/A	705G 560 61 09	R919 ASS'Y (ROHS)			1
176	N/A	705G 780 57 02	CN901 ASS'Y (ROHS)			1
177	N/A	705G 780 57 06	D910 ASS'Y (ROHS)			1
178	N/A	PKC521SE1SMTP	POWER BOARD FOR SMT			0
179	N/A	S80LL15T7VG	变压器组件	PT201		1
180	N/A	AU560KBO9SMTP	AUDIO BOARD FOR SMT			0
181	N/A	061L0603102	CHIPR 1K OHM +-5% 1/16W	R208		1
182	N/A	061L0603102	CHIPR 1K OHM +-5% 1/16W	R207		1
183	N/A	061L0603183	CHIP 18K OHM 1/10W	R203		1
184	N/A	061L0603183	CHIP 18K OHM 1/10W	R201		1
185	N/A	061L0603203	CHIPR 20K OHM+-5% 1/10W	R211		1
186	N/A	061L0603203	CHIPR 20K OHM+-5% 1/10W	R210		1
187	N/A	065G0805101 31	CHIP 100PF 50V NPD 0805	C212		1
188	N/A	065G0805101 31	CHIP 100PF 50V NPD 0805	C211		1
189	N/A	065G0805104 32	CHIP 0.1U 50V X7R	C213		1
190	N/A	065G0805104 32	CHIP 0.1U 50V X7R	C203		1
191	N/A	065G0805474 22	CHIP 0.47UF 25V X7R 0805	C206		1
192	N/A	065G0805474 22	CHIP 0.47UF 25V X7R 0805	C204		1
193	N/A	AUPC560KB4AIP	AUDIO BOARD FOR AI			1
194	N/A	AIC560KV8V29P	MAIN BOARD FOR AI			0
195	N/A	040G 457624 1B	LABEL-CPU			1
196	N/A	056G 562 57	MST8011B-LF PQFP-128	U401		1
197	N/A	056G 563 7	AIC1084-33PM	U202		1
198	N/A	056G 585 7	RT9164-25PL	U201		1
199	N/A	056G 643 9	EM6353BZ2SP3B-2.9	U603		1
200	N/A	056G 643 5A	MAX810 STRG	U603		0
201	N/A	056G1125137 X	W78E065A40PL PLCC44	U601		1
202	N/A	056G1133 20	AT24C02N-10SU-2.7	U301		1
203	N/A	056G1133 24	AT24C16AN-10SU-2.7	U602		1
204	N/A	056G1133 56	M24C16-WMN6TP	U602		0
205	N/A	057G 417 4	PMBS3904/PHILIPS-SMT(04)	Q204		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
206	N/A	057G 417 4	PMBS3904/PHILIPS-SMT(04)	Q202		1
207	N/A	057G 417 4	PMBS3904/PHILIPS-SMT(04)	Q201		1
208	N/A	057G 417 6	PMBS3906/PHILIPS-SMT(06)	Q602		1
209	N/A	057G 417 6	PMBS3906/PHILIPS-SMT(06)	Q601		1
210	N/A	057G 763 1	A03401 SOT23 BY AOS(A1)	Q203		1
211	N/A	061L 125472 8	CHIP AR 8P4R 4.7K OHM+-5% 1/16W	RN602		1
212	N/A	061L 125472 8	CHIP AR 8P4R 4.7K OHM+-5% 1/16W	RN601		1
213	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	R642		1
214	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	R636		1
215	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	R502		1
216	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	R210		1
217	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	FB303		1
218	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	FB302		1
219	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	FB301		1
220	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R305		1
221	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R306		1
222	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R634		1
223	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R635		1
224	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R609		1
225	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R402		1
226	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R608		1
227	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R307		1
228	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R309		1
229	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R312		1
230	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R322		1
231	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R639		1
232	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R303		1
233	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R302		1
234	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R301		1
235	N/A	061L0603102	CHIPR 1K OHM +-5% 1/16W	R203		1
236	N/A	061L0603102	CHIPR 1K OHM +-5% 1/16W	R310		1
237	N/A	061L0603102	CHIPR 1K OHM +-5% 1/16W	R311		1
238	N/A	061L0603102	CHIPR 1K OHM +-5% 1/16W	R624		1
239	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R407		1
240	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R406		1
241	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R405		1
242	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R404		1
243	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R321		1
244	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R318		1
245	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R317		1
246	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R601		1
247	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R602		1
248	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R604		1
249	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R605		1
250	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R606		1
251	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R607		1
252	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R613		1
253	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R625		1
254	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R626		1
255	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R627		1
256	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R314		1
257	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R308		1
258	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R211		1
259	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R208		1
260	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R206		1
261	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R204		1
262	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R202		1
263	N/A	061L0603104	RST SM 0603 RC0603 100K	R215		1
264	N/A	061L0603121	CHIPR 120 OHM 1/10W	R618		1
265	N/A	061L0603222	CHIPR 2.2K OHM+-5% 1/16W	R617		1
266	N/A	061L0603222	CHIPR 2.2K OHM+-5% 1/16W	R313		1
267	N/A	061L0603330	CHIPR 33 OHM +-5% 1/10W	R316		1
268	N/A	061L0603330	CHIPR 33 OHM +-5% 1/10W	R315		1
269	N/A	061L0603390 0F	CHIP 390 OHM 1/10W 1%	R403		1
270	N/A	061L0603391	CHIP 390 OHM 1/10W	C510		1
271	N/A	061L0603471	CHIPR 470 OHM+-5% 1/16W	R623		1
272	N/A	061L0603471	CHIPR 470 OHM+-5% 1/16W	R622		1
273	N/A	061L0603471	CHIPR 470 OHM+-5% 1/16W	R621		1
274	N/A	061L0603471	CHIPR 470 OHM+-5% 1/16W	R620		1
275	N/A	061L0603471	CHIPR 470 OHM+-5% 1/16W	R304		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
276	N/A	061L0603472	CHIPR 4.7K OHM +-5% 1/16	R619		1
277	N/A	061L0603472	CHIPR 4.7K OHM +-5% 1/16	R616		1
278	N/A	061L0603472	CHIPR 4.7K OHM +-5% 1/16	R212		1
279	N/A	061L0603472	CHIPR 4.7K OHM +-5% 1/16	R207		1
280	N/A	061L0603472	CHIPR 4.7K OHM +-5% 1/16	R205		1
281	N/A	061L0603472	CHIPR 4.7K OHM +-5% 1/16	R201		1
282	N/A	061L0603750	CHIPR 75 OHM+-5% 1/16W	R327		1
283	N/A	061L0603750	CHIPR 75 OHM+-5% 1/16W	R325		1
284	N/A	061L0603750	CHIPR 75 OHM+-5% 1/16W	R326		1
285	N/A	065G0603101 31	CER1 0603 NP0 50V 100P PM5 R	C617		1
286	N/A	065G0603102 32	1000PF +-10% 50V X7R	C610		1
287	N/A	065G0603102 32	1000PF +-10% 50V X7R	C307		1
288	N/A	065G0603102 32	1000PF +-10% 50V X7R	C606		1
289	N/A	065G0603102 32	1000PF +-10% 50V X7R	C609		1
290	N/A	065G0603102 32	1000PF +-10% 50V X7R	C608		1
291	N/A	065G0603102 32	1000PF +-10% 50V X7R	C607		1
292	N/A	065G0603104 12	CER2 0603 X7R 16V 100N P	C613		1
293	N/A	065G0603104 12	CER2 0603 X7R 16V 100N P	C612		1
294	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C406		1
295	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C407		1
296	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C408		1
297	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C409		1
298	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C410		1
299	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C411		1
300	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C412		1
301	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C413		1
302	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C415		1
303	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C416		1
304	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C417		1
305	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C618		1
306	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C601		1
307	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C418		1
308	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C420		1
309	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C421		1
310	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C423		1
311	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C425		1
312	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C426		1
313	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C428		1
314	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C511		1
315	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C201		1
316	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C203		1
317	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C205		1
318	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C207		1
319	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C210		1
320	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C212		1
321	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C214		1
322	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C216		1
323	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C313		1
324	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C401		1
325	N/A	065G0603104 32	CHIP 0.1UF 50V X7R	C404		1
326	N/A	065G0603220 31	CER1 0603 NP0 50V 22P PM	C604		1
327	N/A	065G0603220 31	CER1 0603 NP0 50V 22P PM	C602		1
328	N/A	065G0603220 31	CER1 0603 NP0 50V 22P PM	C403		1
329	N/A	065G0603220 31	CER1 0603 NP0 50V 22P PM	C402		1
330	N/A	065G0603221 31	CER1 0603 NP0 50V 220P P	C312		1
331	N/A	065G0603224 17	CAP:CER 0.22UF-20%-80% 1	C605		1
332	N/A	065G0603224 32	CHIP 0.22UF 50V X7R	C605		0
333	N/A	065G0603330 31	CER1 0603 NP0 50V 33P PM	C311		1
334	N/A	065G0603473 32	CHIP 0.047UF 50V X7R	C305		1
335	N/A	065G0603473 32	CHIP 0.047UF 50V X7R	C306		1
336	N/A	065G0603473 32	CHIP 0.047UF 50V X7R	C308		1
337	N/A	065G0603473 32	CHIP 0.047UF 50V X7R	C309		1
338	N/A	065G0603473 32	CHIP 0.047UF 50V X7R	C310		1
339	N/A	065G0603473 32	CHIP 0.047UF 50V X7R	C304		1
340	N/A	065G0603683 32	CHIP 0.068UF 50L X7R	C217		1
341	N/A	065G0805105 17	chip ceramic cap 1UF 16V	C611		1
342	N/A	065G0805105 22	CHIP 1UF 25V X7R 0805	C206		1
343	N/A	071G 56G151 A	TB160808G151	FB304		1
344	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB601		1
345	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB406		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
346	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB405		1
347	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB404		1
348	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB403		1
349	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB402		1
350	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB401		1
351	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB603		1
352	N/A	071G 56Z601	CHIP BEAD 600 OHM 0805	FB201		1
353	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB601		1
354	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB603		1
355	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB201		1
356	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB401		1
357	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB402		1
358	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB403		1
359	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB404		1
360	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB405		1
361	N/A	071G 56Z601 M	CHIP BEAD 600OHM	FB406		1
362	N/A	093G 39147	TZMC5V6	D320		1
363	N/A	093G 39147	TZMC5V6	D319		1
364	N/A	093G 39147	TZMC5V6	D318		1
365	N/A	093G 39147	TZMC5V6	D317		1
366	N/A	093G 39147	TZMC5V6	D321		1
367	N/A	093G 39147	TZMC5V6	D322		1
368	N/A	093G 39147	TZMC5V6	D323		1
369	N/A	093G 39147SEM	ZMM5V6ST	D317		0
370	N/A	093G 39147SEM	ZMM5V6ST	D318		0
371	N/A	093G 39147SEM	ZMM5V6ST	D319		0
372	N/A	093G 39147SEM	ZMM5V6ST	D320		0
373	N/A	093G 39147SEM	ZMM5V6ST	D321		0
374	N/A	093G 39147SEM	ZMM5V6ST	D322		0
375	N/A	093G 39147SEM	ZMM5V6ST	D323		0
376	N/A	093G 39149	MLL5232B BY FULL POWER SMT	D323		0
377	N/A	093G 39149	MLL5232B BY FULL POWER SMT	D322		0
378	N/A	093G 39149	MLL5232B BY FULL POWER SMT	D321		0
379	N/A	093G 39149	MLL5232B BY FULL POWER SMT	D320		0
380	N/A	093G 39149	MLL5232B BY FULL POWER SMT	D319		0
381	N/A	093G 39149	MLL5232B BY FULL POWER SMT	D318		0
382	N/A	093G 39149	MLL5232B BY FULL POWER SMT	D317		0
383	E-00006392	093G 64 42 P	BAV70 SOT-23	D304		1
384	N/A	093G 64 42 PP	BAV70 SOT-23	D304		0
385	N/A	093G 6433P	BAV99	D303		1
386	N/A	093G 6433P	BAV99	D302		1
387	N/A	093G 6433P	BAV99	D301		1
388	N/A	093G1004 3	SS14	D201		1
389	N/A	093G1020 1 S	GS1D	D202		1
390	N/A	715G1237 2 3	MAIN BOARD			1
391	N/A	056G1133 34	M24C02-WMN6TP	U301		1
392	N/A	AIK560KE39P	KEY BOARD FOR AI			0
393	N/A	061G 60251152T	510 OHM 5% 1/6W	R102		1
394	N/A	061G 60251152T	510 OHM 5% 1/6W	R101		1
395	N/A	715G1244 2 A	KEY BOARD			1
396	N/A	705G 560 61 09	R919 ASS'Y (ROHS)			0
397	N/A	061G 2J39858H	0.390OHM 5% 2W	R919		1
398	N/A	096G 29 6	H.S. TUBE			10
399	N/A	705G 780 57 02	CN901 ASS'Y (ROHS)			0
400	N/A	087G 501 12 CJ	AC SOCKET	CN901		1
401	N/A	087G 501 12 RF	AC SOCKET	CN901		0
402	N/A	095G205S354022	HARNESS			1
403	N/A	096G 29 6	H.S. TUBE			20
404	N/A	705G 780 57 06	D910 ASS'Y (ROHS)			0
405	N/A	093G3010 1 A	31DQ10	D910		1
406	N/A	Q90G 410 4	HEAT SINK			1
407	N/A	PKC521SE1SMTP	POWER BOARD FOR SMT			0
408	N/A	056G 566 10	SI4431DY-T1-SMT	Q203		1
409	N/A	056G 622 1	BA9741F-SMT	U201		1
410	N/A	057G 760 4	DTA144WKA BY ROHM SMT	Q202		1
411	N/A	057G 760 5	DTC144WKA BY ROHM SMT	Q201		1
412	N/A	057G 760 4B	PDTA144WK SOT346	Q202		0
413	N/A	057G 760 5B	PDTTC144WK SOT346	Q201		0
414	N/A	057G 763 3	AO4411 SO-8	Q203		1
415	N/A	057G 763 4	RSS050P03	Q203		0

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
416	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	R208		1
417	N/A	061L0603000	RST SM 0603 JUMP MAX 0R0	R929		1
418	N/A	061L0603101	CHIPR 100 OHM +-5% 1/16W	R218		1
419	N/A	061L0603102	CHIPR 1K OHM +-5% 1/16W	R931		1
420	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R222		1
421	N/A	061L0603103	CHIPR 10K OHM +-5% 1/16W	R204		1
422	N/A	061L0603123	CHIP 12K OHM 1/16W	R238		1
423	N/A	061L0603221	CHIPR 220 OHM+-5% 1/16W	R216		1
424	N/A	061L0603222	CHIPR 2.2K OHM+-5% 1/16W	R214		1
425	N/A	061L0603392	CHIP 3.9K OHM 1/16W	R212		1
426	N/A	061L0603511	CHIPR 510 OHM+-5% 1/16W	R236		1
427	N/A	061L0603513	CHIP 51K OHM	R240		1
428	N/A	061L0603911	CHIP 910 OHM 1/16W	R234		1
429	N/A	061L0603912	CHIPR 9.1KOHM +-5% 1/10W	R210		1
430	N/A	061L0805100 3F	CHIP 100KOHM +-1% 1/8W	R916		1
431	N/A	061L0805102	CHIPR 1K OHM +-5% 1/10W	R928		1
432	N/A	061L0805102	CHIPR 1K OHM +-5% 1/10W	R927		1
433	N/A	061L0805221	CHIPR 220 OHM +-5% 1/8W	R940		1
434	N/A	061L0805240 1F	CHIPR 2.4KOHM +-1% 1/8W	R926		1
435	N/A	061L0805330 2F	CHIP 33KOHM 1/8W 1%	R924		1
436	N/A	061L0805360 1F	CHIP 3.6KOHM 1/8W 1%	R925		1
437	N/A	061L1206101	CHIP 100 OHM 5% 1/8W	R912		1
438	N/A	061L1206102	CHIP 1K OHM 5% 1/8W	R232		1
439	N/A	061L1206102	CHIP 1K OHM 5% 1/8W	R219		1
440	N/A	061L1206103	CHIP 10KOHM 5% 1/4W	R915		1
441	N/A	061L1206105	CHIP 1MOHM 5% 1/4W	R905		1
442	N/A	061L1206105	CHIP 1MOHM 5% 1/4W	R904		1
443	N/A	061L1206105	CHIP 1MOHM 5% 1/4W	R902		1
444	N/A	061L1206105	CHIP 1MOHM 5% 1/4W	R901		1
445	N/A	061L1206242	CHIPR 2.4K OHM+-5% 1/8W	R225		1
446	N/A	061L1206242	CHIPR 2.4K OHM+-5% 1/8W	R224		1
447	N/A	061L1206242	CHIPR 2.4K OHM+-5% 1/8W	R226		1
448	N/A	061L1206242	CHIPR 2.4K OHM+-5% 1/8W	R227		1
449	N/A	061L1206472	CHIP 4.7KOHM 5% 1/4W	R909		1
450	N/A	061L1206472	CHIP 4.7KOHM 5% 1/4W	R910		1
451	N/A	061L1206472	CHIP 4.7KOHM 5% 1/4W	R911		1
452	N/A	061L1206684	CHIPR 680K OHM+-5% 1/8W	R906		1
453	N/A	061L1206684	CHIPR 680K OHM+-5% 1/8W	R907		1
454	N/A	065G0603471 32	CHIP 470PF 50V X7R	C398		1
455	N/A	065G0603471 32	CHIP 470PF 50V X7R	C399		1
456	N/A	065G0805104 22	0.1UF +-10% 25V X7R 080	C205		1
457	N/A	065G0805104 22	0.1UF +-10% 25V X7R 080	C202		1
458	N/A	065G0805104 32	CHIP 0.1U 50V X7R	C928		1
459	N/A	065G0805104 32	CHIP 0.1U 50V X7R	C927		1
460	N/A	065G0805104 32	CHIP 0.1U 50V X7R	C910		1
461	N/A	065G0805105 27	CHIP 1UF Y5V 0805	C225		1
462	N/A	065G0805105 27	CHIP 1UF Y5V 0805	C219		1
463	N/A	065G0805105 27	CHIP 1UF Y5V 0805	C211		1
464	N/A	065G0805105 27	CHIP 1UF Y5V 0805	C209		1
465	N/A	065G0805105 27	CHIP 1UF Y5V 0805	C203		1
466	N/A	065G0805331 31	CHIP 330pF 50V NPO	C208		1
467	N/A	065G0805471 31	CHIP 470PF 50V NPO	C940		1
468	N/A	065G0805474 27	CHIP 0.47UF 25V Y5V	C221		1
469	N/A	093G 39S 3 T	BZT52-C11	D203		1
470	N/A	093G 39S 8 T	RLZ11B LLDS	D203		0
471	N/A	093G 39S 16 T	SML4737A/1	ZD904		1
472	N/A	093G 39S 19 T	PTZ7.5B	ZD904		0
473	N/A	093G 39S 20 T	RLZ22B LLDS	ZD901		1
474	N/A	093G 39S 23 T	GLZ22B	ZD901		0
475	N/A	093G2004 1	SMAL240LVXRO-SMT	D201		1
476	N/A	093G2004 3	SSM24PT	D201		0
477	N/A	093G2004 2A	SM240A DO-214AC	D201		0
478	N/A	093G3004 1	SMAL340XXXRO 3A 40V SMA FULL P	D201		0
479	N/A	093G3004 2	SR34 PAN JIT	D201		0
480	N/A	PC1521SVA1AIP	POWER BOARD FOR AI			1
481	N/A	S80LL15T7VG	变压器组件			0
482	N/A	AUPC560KB4AIP	AUDIO BOARD FOR AI			0
483	N/A	715G1144 1 IO	AUIDO BOARD			1
484	N/A	095G 90 23	JUMPER	J204		1
485	N/A	095G 90 23	JUMPER	J203		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
486	N/A	095G 90 23	JUMPER	J202		1
487	N/A	095G 90 23	JUMPER	J201		1
488	N/A	061G 60220152T	CFR 200 OHM +-5% 1/6W	R212		1
489	N/A	067G 3054713XT	470 uf 16v	C208		1
490	N/A	067G 3054713XT	470 uf 16v	C207		1
491	N/A	067G 3054713XT	470 uf 16v	C205		1
492	N/A	067G 3054713XT	470 uf 16v	C202		1
493	N/A	067G 3054713XT	470 uf 16v	C201		1
494	N/A	067G 3091097XT	1.0uF +-20% 50V	C210		1
495	N/A	067G 3091097XT	1.0uF +-20% 50V	C209		1
496	N/A	PC1521SVA1AIP	POWER BOARD FOR AI			0
497	N/A	006G 31500	EYELET	CN901		2
498	N/A	006G 31502	1.5MM RIVET	T901		4
499	N/A	006G 31502	1.5MM RIVET	Q903		1
500	N/A	006G 31502	1.5MM RIVET	PT201		2
501	N/A	006G 31502	1.5MM RIVET	NR901		2
502	N/A	006G 31502	1.5MM RIVET	L902		4
503	N/A	006G 31502	1.5MM RIVET	C905		2
504	N/A	061G 60275352T	75KOHM 5% 1/6W	R201		1
505	N/A	715G1034 3 N2	PCB			1
506	N/A	095G 90 23	JUMPER	J108		1
507	N/A	095G 90 23	JUMPER	J109		1
508	N/A	095G 90 23	JUMPER	J110		1
509	N/A	095G 90 23	JUMPER	J111		1
510	N/A	095G 90 23	JUMPER	J112		1
511	N/A	095G 90 23	JUMPER	J113		1
512	N/A	095G 90 23	JUMPER	J906		1
513	N/A	095G 90 23	JUMPER	J905		1
514	N/A	095G 90 23	JUMPER	J904		1
515	N/A	095G 90 23	JUMPER	J903		1
516	N/A	095G 90 23	JUMPER	J902		1
517	N/A	095G 90 23	JUMPER	J901		1
518	N/A	095G 90 23	JUMPER	J116		1
519	N/A	095G 90 23	JUMPER	J114		1
520	N/A	095G 90 23	JUMPER	J115		1
521	N/A	095G 90 23	JUMPER	J107		1
522	N/A	095G 90 23	JUMPER	J106		1
523	N/A	095G 90 23	JUMPER	J105		1
524	N/A	095G 90 23	JUMPER	J102		1
525	N/A	095G 90 23	JUMPER	J101		1
526	N/A	095G 90 23	JUMPER	FB902		1
527	N/A	061G 17210052T	100HM 5% 1/4W	R917		1
528	N/A	061G 17210152T	100 OHM 5% 1/4W	R930		1
529	N/A	061G 17210352T	CFR 10KOHM +-5% 1/4W	R918		1
530	N/A	061G 17268952T	6.8OHM 5% 1/4W	R908		1
531	N/A	061G 20747052T	47 OHM 1/2W	R922		1
532	N/A	061G 20747052T	47 OHM 1/2W	R920		1
533	N/A	061G 60218352T	18KOHM 5% 1/6	R220		1
534	N/A	061G 60247352T	47KOHM 5% 1/6W	R205		1
535	N/A	071G 55 19 T	FERRITE BEAD D9X3. 5X0.8	FB903		1
536	N/A	071G 55 29	FERRITE BEAD	FB901		1
537	N/A	093G 39 5452T	HZ12B2-E	ZD902		1
538	N/A	093G 39 7752T	HZ5C1-E	ZD903		1
539	N/A	093G 6038P52T	PS102R	D902		1
540	N/A	093G 64 1152T	1N4148	D903		1
541	N/A	093G 64 1152T	1N4148	D209		1
542	N/A	093G 64 1152T	1N4148	D207		1
543	N/A	093G 64 1152T	1N4148	D205		1
544	N/A	056G 158 4 T	H431BA	IC903		1
545	N/A	057G 414 2	MPS3906	Q207		1
546	N/A	057G 417 3 T	MPS3904	Q205		1
547	N/A	057G 419 PP T	2PC945P	Q902		1
548	N/A	057G 420 PP T	2PA733P	Q901		1
549	N/A	064G700J1020AT	1000PF 50V PEN	C911		1
550	N/A	064G700J1040AT	0.1UF 50V PEN	C936		1
551	N/A	064G700J1040AT	0.1UF 50V PEN	C909		1
552	N/A	064G700J1040AT	0.1UF 50V PEN	C204		1
553	N/A	065G 450104 7T	0.1UF +80-20% 50V Y5V	C908		1
554	N/A	065G517K102 5T6921	1000PF +-10% 500V Y5P	C920		1
555	N/A	065G517K102 5T6921	1000PF +-10% 500V Y5P	C921		1

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
556	N/A	067G 2154797NT	LOW ESR 4.7UF+-20% 50V BY CHEM	C207		1
557	N/A	067G 3052207NT GP	KME50VB22M-TP5 5*11	C907		1
558	N/A	093G 6026W52T	FR107	D901		1

**** Reader's Response****

Dear Readers:

Thank you in advance for your feedback on our Service Manual, which allows continuous improvement of our products. We would appreciate your completion of the Assessment Matrix below, for return to ViewSonic Corporation.

Assessment

A. What do you think about the content of this Service Manual?

<i>Unit</i>	<i>Excellent</i>	<i>Good</i>	<i>Fair</i>	<i>Bad</i>
1. Precautions and Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjustment Procedure				
6. Troubleshooting Flow Chart				
7. Block Diagrams				
8. Schematic Diagrams				
9. PCB Layout Diagrams				
10. Exploded Diagram and Exploded Parts List				
11. Recommended Spare Parts List				

B. Are you satisfied with this Service Manual?

<i>Item</i>	<i>Excellent</i>	<i>Good</i>	<i>Fair</i>	<i>Bad</i>
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C. Do you have any other opinions or suggestions regarding this service manual?

Reader's basic data:

Name:		Title:	
Company:			
Add:			
Tel:		Fax:	
E-mail:			

After completing this form, please return it to ViewSonic Quality Assurance in the USA at facsimile 1-909-839-7943. You may also e-mail any suggestions to the Director, Quality Systems & Processes (marc.maupin@viewsonic.com)